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Original Communications.

ARTICLE I.—*Clinical Lectures on Diseases of the Ear.* By E. L. HOLMES, M.D., Professor of Ophthalmology and Otology, Rush Medical College; Surgeon to Illinois Charitable Eye and Ear Infirmary, Chicago.

AURAL CATARRH.

Gentlemen—Catarrhal inflammation of the middle ear, in its acute or its chronic form, is a serious and obstinate affection. You must have become impressed with this fact both from your own reading and observation at these clinics. Remember that this class of diseases is a special illustration of the general fact that nearly all mucous membranes, once affected with catarrhal inflammation, are rendered susceptible, and consequently liable, to relapse.

The disease is, in popular language, "nothing but a cold in the ears." To those of you who have seen so many affections of the eye, throat, lungs and other organs, produced by colds, these words "nothing but" must seem wholly misapplied.

Recalling to your minds the mechanism of hearing, you can readily comprehend how inflammation of the mucous membrane of the middle ear, either acute or chronic, by producing thicken-

ing of this tissue, must retard the vibratory motions of the membrana tympani, ossicles, especially the stapes, and of the membrane of the foramen rotundum.

The immediate cause of this affection is generally exposure to changes of temperature. The inducing causes may be the susceptibility produced by diseases of the throat, measles, scarlet fever, and, less frequently perhaps, by syphilis.

The disease is often attended with trouble of the throat and nares. The mucous membrane of the upper air passages should always be carefully investigated in every patient with affections of the middle ear.

The symptoms of chronic aural catarrh are usually more or less gradual, sometimes sudden but not extensive diminution in the acuteness of hearing, *tinnitus aurium*, more or less thickening and opacity of the membrana tympani. This membrane is often more concave and irregular in its surface than in the normal condition. The vessels near the handle of the hammer are frequently congested. In some cases, collections of mucus may be detected, in examining the membrane, by the presence of a dark appearance in a portion of the membrane, which is analogous to hypopion in the eye. It is important for you to study the use of the otoscope in detecting the presence and the peculiar qualities of the sounds produced by forcing air through the eustachian tubes into the middle ear, in making strong efforts to blow the nose when the nostrils are closed.

The symptoms of the acute form are, pain, sudden and great loss of hearing, and great redness of the membrana tympani, often extending to the walls of the external meatus. The accumulations of mucus may so far fill the middle ear as to produce a convex appearance of the membrana.

The pain is usually severe, and is accompanied with throbbing and with subjective sounds.

Occasionally cases will be presented in which a "cold" has apparently produced a loss of hearing greater than the other symptoms may seem to indicate.

Inflammation of the middle ear is quite common in young children. As general practitioners you should acquire the habit of never leaving a crying infant without examining the ears. Careful and experienced physicians have for days overlooked the presence of serious disease of the ear in infants evidently in great pain.

In considering the differential diagnosis between catarrhal deafness and deafness from disease of the auditory nerve, you should not forget to study the use of the tuning fork. If neither this instrument nor a watch can be heard a short distance from the ear, but can be heard as readily as in health, when placed in contact with the head or teeth, you can be reasonably certain that the disease is confined to the middle ear, or rather perhaps to the vibratory apparatus, external to the labyrinth.

In regard to the prognosis, I can only say you should be guarded in expressing your opinion, for the ear once having suffered from a catarrhal inflammation, is liable to suffer relapse on exposure to cold. A very large proportion of the cases you will meet, will probably remain with hearing more or less impaired.

In the treatment of the acute forms, where there are severe pain and redness, there is need of promptness and energy.

A few leeches should be applied to the mouth of the meatus, or in front of it. Water, as warm as can be well borne, turned frequently into the meatus, will greatly aid in relieving pain, as also hot compresses applied on and around the ear. Hypodermic injections of morphine may be necessary to secure rest. If you can control the patient, as regards exposure to cold, let him take frequently either hot or Turkish baths, and make free use of diuretics.

As soon as collections of mucus or pus are observed pressing the membrana tympani outward, you should at once perforate this membrane, to ensure their evacuation. The collections must be further removed, either by the use of Politzer's air bag, now so often employed, or by carefully forcing some mild astringent solution into the external meatus through the opening in the membrana tympani and through the eustachian tube.

The syringe should be provided with a nozzle of soft rubber, large enough to close the mouth of the external meatus.

In the chronic and sub-acute forms of the disease, our attention must be carefully directed to the treatment of the mucous membrane of the throat, nares, and eustachian tubes.

The use of gargles, injections of solutions and vapors, are of special importance. These are usually medicated with alum, zinc, tannin, chlorate of potash, muriate of ammonia, or iodine. A few drops of a strong solution of nitrate of silver, thrown just against the mouth of the eustachian tube, where the mucous membrane of this

passage is especially implicated, is sometimes of service. This and other remedies must be introduced very carefully by means of the eustachian catheter. The various uses of this instrument should be studied by you all. While you are pursuing practical anatomy, do not omit to observe, repeatedly, the relative position of the opening of the eustachian tubes and posterior nares. Practice your hands in the gentle introduction of the catheter into these tubes. The use of Politzer's air bag, which you have so frequently seen, should especially claim your attention.

I have sketched a mere outline of the treatment of the disease under consideration. If you have an opportunity of attending the Eye clinics of the large cities of this country, or of Europe, you will be convinced, I think, that our most approved treatment is competent to give permanent and radical relief in but a small minority of cases.

Do not, however, neglect nor despise the means we possess, for any treatment that will accomplish so much to relieve a great physical infirmity, with its attending mental suffering, is worthy of careful study.

ARTICLE II.—*Remarkable Case of Injury from Glass.* By GEORGE W. KITTELL, M.D., Shabbona, Ill.

The following case, of which I am induced to give a brief account, is a real curiosity. Its rarity, and, almost tragic events, have been a daily source of wonder and excitement to our community. Space will not allow me to give the details of all that occurred to my patient during a period of eight years. It would fill a volume. This account will be deficient in many minor particulars, as no notes were kept of the case.

December 24th, 1864, a young lady named Caroline Low cut her hand severely while replacing a window. She intended striking the top of the sash with her fist, but, missing it, the hand passed through the upper pane, about three inches from its lower edge. The glass broke diagonally; three triangular pieces entering the ulnar border of the hand opposite the middle of the palm. The external wound was one and a fourth inches in length, the same

as the base of the longest piece; so they must have slid one upon the other as they entered.

On inquiry, Miss Low told me the glass reached nearly across the palm. To mitigate the pain she pressed the right hand firmly between the thumb and fingers of the left, thereby breaking the glass in many pieces. She obstinately refused to have medical aid until three weeks had elapsed, when it was feared she would lose the hand.

Dr. Z. C. Brown was called. He found the hand and arm enormously swollen. He made several incisions in the palm between the fingers, and plugged the wounds with lint. The hand was so swollen that no large pieces could be detected. Topical applications to reduce the swelling were made. On the following day the lint was removed, and was found covered by shining particles of glass, many of them smaller than a pin's head. This operation was repeated several times with like results, and the attendant thought the glass was all out. She was then for a short time under the care of Dr. S. N. Fish, who pursued the same treatment with like results.

May 1st, 1865, she came under the notice of the writer. The actual amount of glass in the hand was not even suspected, and though on full inquiry I became convinced that the amount was large, I was not much less surprised than others at the result. If the broken pane had been carefully examined at the time the accident occurred, it would have conclusively settled a vexed question.

Subsequently when the pieces actually removed, from the crown of her head to the soles of her feet, were numbered by thousands, no wonder the credulity of the public was sorely tried. Some of the plebeians thought there was nothing miraculous in it. Some said she swallowed the glass; others that it was produced in the system by medicines I had given her; others still, that the doctor pounded up the glass at home, and reported that he took it from the patient for a sensation.

At the time I saw the patient first the wounds were all healed, leaving the hand contracted and distorted. I made an incision over a tender spot near the thumb, and filled the cut with lint. I counted twenty pieces on it next day when it was removed; they were larger than any before obtained, and were preserved.

The patient suffered considerable pain, and came to my office every two weeks to be lanced; much glass was removed in this way, the wounds healing with remarkable rapidity.

In August, this year, a large superficial sore appeared at the elbow, which was dressed with lint and simple cerate. A large number of small particles of glass were removed on the lint and with small forceps. The wound continued to discharge glass for four months, when it healed up. In the November following, a larger sore appeared at the shoulder with the same history.

During the spring of 1866, a large sore, in all respects like the others, made its appearance on the upper part of the chest.

In the following summer, glass was removed from the scalp, and numerous pieces worked their way into the eye through the conjunctiva, causing intense pain.

In January, 1867, the soles of the feet became sore, and some glass was discharged. The feet were lanced and the wounds plugged with cotton. She was soon severely attacked with tetanus, which continued two weeks. She was treated by large and continued doses of morphine. Sixty grains were given, in grain doses, in six days.

When she had been free from spasm two weeks, another attempt was made to remove glass from her feet, which was followed as before by tetanus. Large doses of morphine were again given, which controlled the spasms.

The attack continued seven weeks. One cause of her prolonged sickness was, two elderly female friends who would not administer the medicine in my absence, saying so much morphine would kill her. They could not see that it would be as well to die of morphine as tetanus. She received another shock from the visit of an honest clergyman, who in spite of my remonstrance repeated his visit.

Her convalescence, if it might be so termed, was tedious, and for a long time she was so sensitive that cutting the hair or nails would bring on a convulsion. She improved very slowly.

In September and October, 1867, she complained of pain in the head and neck; turning the head suddenly would bring on a convulsion. The first piece of glass large enough to show two polished surfaces, was at this time taken from the neck. Shortly after, a pointed piece half an inch long was removed from the ear by the

forceps. The inflammation and suppuration which followed, destroyed the power of hearing in that ear.

Immediately after this, a piece of glass five-eighths of an inch long cut its way into the œsophagus and was removed by an emetic. Afterward, on each of two successive days, two pieces were removed in the same manner. One, the largest ever obtained, was one and one-fourth inches in width. The four pieces fitted exactly, the whole forming a triangle two and three-fourths inches in length. Her throat was badly cut in the removal of these large pieces, and bled profusely. When the wounds healed, the canal was so much contracted that the swallowing of solids was ever after difficult. From this time about twenty pieces of various sizes and shapes were removed.

Until September, 1868, nothing unusual occurred except the expectoration of blood with some small particles of glass. The glass probably cut into the pharynx above and thus found entrance into the lungs and were thrown off as any other foreign substance.

At the above-mentioned date she was stopping at a hotel in Shabbona. The room next hers was occupied by a dentist, who was one of a horse-stealing gang. She overheard them in their deliberations, of which they by some means became aware and undertook to destroy her by poisoning.

She was taking morphia at the time, the powders being kept on a shelf in her room. Some one entered the room in her absence, took out the morphine and placed arsenic in the same papers. I was sent for in haste, and found my patient with unequivocal symptoms of arsenical poisoning. Vomited her freely and administered magnesia as an antidote. She soon recovered. To prevent suspicion on the part of the rascals, I told the friends she had cholera morbus, and my statement was confirmed by a relative who is a physician and saw her next day.

Further attempts were made with strychnia as had been done with arsenic. The medicine was placed on the shelf as before, and regularly removed by the patient who gave them to me. The medicine she actually took was kept in another place. I tested the powders taken from the shelf and all contained strychnia.

As soon as she was able she prepared to return home. She placed her medicine in a small satchel, and laid it on a table. She left the room for a moment only, but events proved that some

one was on the watch, for the first powder she took after going home produced such violent symptoms as to leave no doubt as to the cause. I happened to call in a short time, but unfortunately had no antidote with me, and I was obliged to send three miles for medicine. The inflammation which followed nearly destroyed her; her convalescence was slow, and she never fully recovered.

Although the glass had been nearly all removed, her naturally strong constitution was wrecked, and there was a condition of general irritability and nervous prostration. The irritation of occasional particles of glass, of over exertion, or exposure, would bring on fever, delirium and convulsions, so that she required almost constant medical attention. Her condition gradually improved until July, 1872.

It seems as if fate continually pursued her with some dire and unusual affliction; and had she not possessed an iron constitution, she must have succumbed long ere she did.

In July, 1872, while eating greens, she swallowed a potatoe bug and its eggs, which most unfortunately had escaped the cook's notice. She was not aware that anything was wrong until she was taken with fever, pain in the stomach, vomiting, etc. I was not sent for until next day. I learned that she had vomited frequently, and supposing that the offending matter had been removed, I administered remedies to check the vomiting, and subdue the inflammation. When I made my next visit I became satisfied as to the cause of the difficulty, and gave an emetic, followed by copious draughts of warm water, and on a careful examination of the matters ejected, was able to discern legs and other parts of the bug. The inflammation subsided. Her disordered nervous system was unable to sustain the shock, and spinal irritation was induced. She was treated with counter-irritants, tonics and anodynes. There was at times temporary improvement, but she grew worse in November, and died of exhaustion, December 4, 1872.

Thus ended a most unusual and remarkable case after almost eight years of intense suffering. No one could have suffered more. A small particle of dirt, all of us know, is a very unpleasant thing to have in the eye; but how trifling a matter it is compared to a piece of glass, with sharp cutting edges in every direction. I have merely given the outlines, as a more minute account would require too much space; but one more curious phase of her his-

tory should be noticed. Similar cases are on record, and this will serve somewhat to confirm them. I refer to clairvoyance.

In this case it was not produced by mesmerism, but by chloroform, and she became more and more susceptible to its influence. In the later stages of the case, this state came on occasionally from over excitement.

Before the accident which introduced the case, she was given chloroform for the purpose of having a tooth extracted. The doctor who administered it, had not always kept that moral rectitude, in some particulars, which becometh a physician. Shortly after the inhalation commenced she began to upbraid him for his conduct. The doctor was frightened, and accused a man, the only one beside himself who knew the circumstance, of telling. The man protested that he was innocent, for he really was. When Miss Low returned to consciousness she knew nothing of what she had said, or of the occurrence she had related.

My first knowledge of this effect of chloroform on her came in this way: After removing some glass one day, and while she was still under the influence of the anæsthetic, I was called out for a private interview. The weather being pleasant, we stepped into the orchard and sat down under a tree. When I returned she remarked, "you thought yourselves very cute when you went into the orchard to talk; but I heard it all." I then asked her to tell what she heard, and she related our conversation correctly. She had not left the bed in my absence, and could not see the orchard, as it was on the other side of the house, neither had she been told that I left the house. In fact, she was apparently unconscious the whole time, and when she had fully recovered from the influence of the chloroform, she knew nothing of what had been done or said. I had known her to say strange things while anæsthetized, but until now had not understood it.

Sometimes, after having taken chloroform, she would rise in her sleep and go miles, in her night clothes, to find articles that had been lost. She never had any knowledge of these nocturnal expeditions in her waking state, except the proof afforded by the presence of missing articles, and the condition of the bed in the morning.

Her clairvoyant state was another existence to her. When in this state she would tell anything that had transpired at other

times, while in the same condition. I have given her chloroform in order to enable her to find lost articles, which she could always do. Some little thefts, and sometimes bigger ones, were made known in the same way.

When very sick she was often delirious, sometimes for hours, which led many people to suppose she was insane, and some said she was possessed of the devil. It was from this fact that the horse thieves escaped punishment; many would take oath in court against her sanity. She was the principal witness, and popular prejudice, backed by some physicians, for no laudable purpose, carried the day.

To relate all that she said and did, while clairvoyant, would make a long and interesting chapter. The most interesting occurrences of this kind must be omitted because of their length. If any doubt is entertained as to the truth of these statements, any further proof desired will be gladly furnished by the author.

ARTICLE III.—*A very Rare Abnormal Condition of the Iris.* By E. L. HOLMES, M.D., of Chicago.

J. T., æt. 23, student of medicine, consulted me last December regarding a singular affection of both eyes, which, he stated, his parents believed to be congenital. The patient was of light complexion and hair, and had always enjoyed good health.

I found clusters of peculiar jet black fungoid growths surrounding the whole pupillary border of each iris, and projecting two or three lines into the anterior chamber—similar to the growths —the corpora nigra—so often found on the pupillary edge of the iris in horses.

These little tumors, seven or eight in number, five of which were relatively large and three very small, were pedunculated, quite regular in form, and pear shaped. They seemed velvety but not glossy, and less granular than the "corpora nigra" in horses. The pupils, or rather apertures, in the centres of these clusters were very narrow and irregular.

At the distance of a few feet scarcely any abnormal appearance could be discovered. Strangers and even associates have seldom

remarked the peculiarity. These growths, jet black on a very light blue iris, presented the appearance at a short distance of a normal pupil, which, however, was quite elliptical in each eye.

The iris lay in its normal plane and showed no indication of tumors situated behind it. In the left eye one of the smaller tumors, attached to the lower border of the pupil by a very minute hair-like peduncle, had free tremulous motions with every movement of the eye.

There was no perceptible contraction or dilatation of the pupil on exposure to the influence of light and shade, although a very slight spasmodic action of the iris was perceptible.

The patient had always supposed till recently that his vision was perfect except for distant objects. The myopia was greater during childhood than subsequently. During the past four years he has worn concave lenses No. 30, for distant objects, and has always been able to study and write constantly without difficulty.

Four months ago vision of the left eye began to fail; useful vision is now almost extinct. Six weeks ago the other eye began to fail. At present with the left eye the patient can read common print indistinctly for a few moments, when the letters become almost invisible.

By means of a stenopaic slit held in a proper position, or even a minute circular aperture in a disc, vision is much improved.

Four weeks ago vision was rendered almost perfect in the left eye and much improved in the right one, both for distant and near objects, by a concave cylindrical lens No. 20, so placed that the axis, passing from above downward and outward (in each eye) formed an angle of 45° with the perpendicular diameter of the cornea.

On account of the extreme minuteness of the pupils an ophthalmoscopic examination of the fundus was impossible, especially as I did not wish to try even so simple an experiment as dilating the pupils with atropine.

I advised iridectomy in the right eye, but have not heard from the patient since my last examination in February.

Selections.

The following article is copied from the *Medical Press and Circular*, of Feb. 5th, 1873, which is published simultaneously in London, Edinburgh and Dublin, and is one of the oldest and most extensively circulated medical journals in Great Britain. The article was prepared expressly for that periodical by the request of its editor, Professor James, and contains, as it states, only a synopsis of Dr. Allen's views on the subject.

The True Law of Population. Based on Physiology and Psychology.

By Dr. NATHAN ALLEN, of Lowell, Mass.

It may appear almost presumptuous to assume the phrase, "true law," which might seem to imply that all other theories were false or not true; but such is not our meaning. It is intended to express this sentiment, that whatever views are entertained on this subject, or however diverse they are, they must all, as far as true, be subservient to a great general law which has its origin and foundation in physiology.

More than thirty years ago, a work was published in London with this title, "The True Law of Population shown to be connected with the Food of the People." The merits of this work consisted very much in the evidences which physiology afforded in support of its theory, arising from the effects that food combined with other agencies had in changing physical organization. But, unfortunately, Mr. Doubleday, the author of this work, as well as some other writers upon population, have not been thoroughly educated in the principles of this science.

As this subject is so vast and complicated, a large volume would be required to discuss it properly, especially in expounding any new views; we can present here only a few points or heads of topics, by way of suggestion and illustration. An examination into the views and theories of most writers upon population shows that the laws which they lay down for its increase have been controlled generally by agents or objects entirely external to the body, and some of them hold only remote or indirect relations to it. Now, while these external agents, such as food, climate, exercise, etc., may operate as powerful factors or as secondary causes, we maintain that there is a great general law of propagation which extends through the whole animal and vegetable kingdoms. Whatever influences these agencies may have in the development of the body, the most important agent or law of all, the law that shapes its life, character, and destiny, it would seem, must have its origin and seat somewhere in the body itself. What then is this law? It may be defined thus: *It consists in the perfectionism*

of structure and harmony of function; or, in other words, that every organ of the body should be perfect in its structure, and that each should perform its legitimate functions in harmony with all others.

While this perfect physical organization is nowhere to be found in nature, we can readily conceive of such a standard, and that there may be all manner of approximations towards it. The nearer this standard is reached, the more completely the law of propagation can be carried out. This theory is supported by evidences deduced from physiology in a variety of ways.

All diseases interfere with the operation of this law, especially those that are considered hereditary. This class of diseases become intensified by each generation, and tend rapidly not only to impair the vitality, but to blot out the existence of the race. There is another class of diseases or weaknesses, described under "sterility," "barrenness," and "impotence," from which strong evidences may be derived.

There is a general principle in physiology, favorable to this theory, which is thus described by Dr. Carpenter:

"There is a certain antagonism between the nutritive and reproductive functions, the one being exercised at the expense of the other. The reproductive apparatus derives the materials of its operations through the nutritive system and its functions. If, therefore, it is in a state of excessive activity, it will necessarily draw off from the individual fabric some portion of aliment destined for its maintenance. It may be universally observed that when the nutritive functions are particularly active in supporting the individual, the reproductive system is undeveloped, and *vice versa*." Let, therefore, any class of organs or any parts of the body be unduly or excessively exercised, and it requires the more nutrition to support them, thereby withdrawing what should go to other organs. In accordance with this physiological law, if any class of organs become predominant in their development, if what may properly be denominated one of the temperaments becomes excessively developed, it conflicts with this great law of increase. In other words, if the organization is carried by successive generations to an extreme—that is, to a high nervous temperament—a predominance of the brain and nervous system; or, on the other hand, to a lymphatic temperament—a predominance of the mere animal nature, it operates unfavorably upon the increase of progeny. Accordingly in the highest states of refinement, culture and civilization of a people, the tendency has always been to run out in offspring; while on the other hand all tribes or races sunk in the lowest stages of barbarism, controlled principally by their animal nature, do not abound in offspring, and, in the course of time, they tend also to run out.

The same general fact has been observed among all the abnormal

classes, such as idiots, cretins, the insane, the deaf and dumb, and, to some extent, with extreme or abnormal organizations, such as are excessively corpulent, or spare, as well as of unnatural size, either very large, or diminutively small.

A similar fact has been observed among distinct classes, such as the nobility, the aristocracy, etc., where by inheritance, refinement and culture the nervous temperament becomes very predominant; it is found that such families in the course of a few generations do not increase in offspring, and, not unfrequently, in time, they become extinct.

A similar result has also followed the intermarriage of relations, from the fact, that the same weaknesses or predispositions are intensified by this relation. Again, if we take those families and races which, for successive generations, have steadily increased most, we shall find that, as a whole, they possess a remarkably healthy, well-balanced organization. Illustrations of this type, we shall find, abound most among the middling or working classes of the Germans, the English, the Scotch, the Irish, and the Americans.

The laws of hereditary descent afford strong evidence in favor of some general law of propagation. The fact, that "like begets like," subject to certain variations and conditions, is a proverb that has been too well attested to be called in question. The union of two agents, possessing similar and dissimilar qualities, constitutes an important condition to which this law of propagation is subject. While it may be difficult to point out, in all cases, the exact results of hereditary influences, still it has been found on a large scale that, in the aggregate, there was the most unquestioned evidence of such agency, and that it was minute and extensive, and continued for successive generations. When this department of physiology becomes thoroughly understood, hereditary influences will more readily be traced back to their primary sources, and to the secondary causes operating to change and modify them. Now, the same evidence that proves the existence of hereditary agency, implies that there is somewhere a general law, of which this is part and parcel; and no one thing will throw so much light upon this whole subject of inheritance, as the recognition of a law of propagation, being based upon a perfect standard in nature. Again, there must exist in physiology a certain standard or type of organization for woman, best adapted for increase both for herself and her offspring. This, we believe, consists in a perfectly healthy and well-balanced body, that, with such an organization, the pregnant state harmonizes, the process of delivery is the safest, and the materials for nursing offspring are found most complete.

This theory of human increase derives evidence from an analogous law in the animal and vegetable kingdoms. It is well known that wonderful improvements have been made, within the present

century, in domestic animals, and this chiefly, too, by an application of physiological laws. To such an extent have the results of observation and experiment been here carried that this process of improvement has been reduced almost to a science. The terms here used, "Pure Blood," "Thorough-Bred," "Pedigree," "Breeding in-and-in," and "Cross-Breeding," may all be explained by two great leading principles. One is, a general law of propagation based upon a perfect standard, and the other is, the law of inheritance subject to certain conditions.

In fact, these two laws constitute, we believe, the two great principles that underlie most of the theories of Charles Darwin; these are discussed under the head of "Natural Selection," and the "Law of Variability;" and whatever may be said against his theories of the "Origin of Species," and "Descent of Man," these two general principles are in our opinion founded in nature and will survive all opposition and criticism.

A similar law of propagation exists in vegetable physiology. It is a fact well attested by gardeners, that in order to produce flowers and fruit, the soil must not be too rich or too poor; if the plant or tree grows too luxuriously, its branches or roots must be pruned; while on the other hand, if unthrifty, it must receive better culture and its roots be enriched before it will become fruitful. So the most beautiful flowers and richest fruit have few seeds, which in time run out, while that of a poor quality may abound in seed, but will not flourish long. It is true the conditions here vary, and so do the modes of perpetuating life; but, by analogy, facts and arguments of a positive character may be gleaned from this source to confirm a similar law in human physiology.

Other facts and arguments might be adduced in favor of such a theory of population, did time and space permit, but we close with two or three suggestions. If this law of propagation is true, it presents a great standard for improvement, where there may be found the perfect free agency of man, and, at the same time, the highest motives for improvement. It could not have been intended by the Creator that man should always be ignorant of, or ignore, the great law of propagation, in many respects the most important in the universe; neither could it have been intended that man as a moral and accountable being should be a mere *passive agent* in the propagation of the species.

Again, this law of population should interest medical men, as it affords a new stand-point in physiology to study the relations of the body as a whole and especially in their connection with the reproductive organs, which have constituted the chief study on this subject. It presents also, in some respects, a new guide to female organization as to what is the normal or best standard for the propagation of the species, and it may throw light on the changes

occasioned by pregnancy, as well as on the qualities indispensable for good nursing. It explains in a clearer light than ever not only the laws of hereditary descent, but magnifies their value and importance in relation to human progress and welfare. It opens new views connected with anthropology, and aids in explaining many changes in the history of different races and nations. Inasmuch as it furnishes a new key to the study of the body, and exalts physical laws in their connection with human improvement, it should certainly interest medical men.

From more than thirty years of observation and experience in a busy professional life we have become every year convinced more and more of the truth and importance of the law here so briefly discussed, and would commend it to the attention of all inquirers after truth in this great field of observation and study.

Infantile Diarrhœa. By IRA E. OATMAN, M.D. Read before the Sacramento Society for Medical Improvement.

Actuated by the prevailing incentive of this society to diversify its deliberations, and make them practical, I invite your attention to one of the most fruitful themes in medical science. The relative proportional mortality in New York, from *infantile diarrhœa*, will appear by reference to a single statistical observation: Embracing a period of five years, there were 12,293 deaths, or 2,458 per annum; the greater portion, probably, being under five years of age.

The term diarrhœa is used to represent pathological conditions of the alimentary canal, too extensive and varied to be embraced in this paper. Disregarding all nosological arrangement, I propose to treat of those cases occurring from birth to the end of the first dentition, or later, the nature of the case being the same—with due regard to their general and special pathology. The disease occurs chiefly in the hot season; this year, in Sacramento, its greatest prevalence having been in June. The delicate and impressible organism of the infant is much more susceptible to external influences than that of the adult. Whatever lowers its standard of health increases this susceptibility, in the same proportion. Some infants are feeble from birth, and require extra vigilance in regard to exposure and diet. These, and all others, have the susceptibilities of the digestive organs increased by the following agencies: the heat of summer; malarious influence; dampness, and vicissitudes of temperature; loss of sleep, fatigue, or traumatic injuries: also, teething, not *per se*, as usually taught and believed, but the slight fever, or increased nervous irritability,

from the local irritation, lowers the standard of health and increases the susceptibility to the exciting causes. The same condition often results from attacks of the exanthemata, and other general and local diseases. Lastly, in towns and cities especially, noxious exhalations from the decomposition of organic matter, in alleys and back yards, but more abundantly in privies and cesspools. These latter are among the most depressing influences in predisposing to the attack, if, indeed, they are not directly causative.

When the vitality of the delicate organism is impaired by any of the above agencies, or when it is congenitally feeble, the susceptibilities of the alimentary canal are so increased, that causes so slight as often to elude our observation are sufficient to provoke the attack.

Among the exciting causes may be mentioned the child's usual diet in excess, whether the mother's milk, or other milk, or any artificial diet. This is a very common cause. Almost any solid food may excite the attack—especially if acescent, sub-acid, or difficult to digest—as jellies, preserves, fruits, especially if not quite ripe, potatoes not finely mashed, cheese, nuts, vegetables, pickles, etc. The delicate mucous membrane of the bowels will scarcely tolerate any substance except healthy chyme, when the standard of health is in some degree lowered. Hence, the acid generated by fermentation, even of the mother's or other milk, with its undigested casein, frequently becomes an active exciting cause of diarrhœa. It is true, however, of a limited number of vigorous infants, whose digestive powers are not impaired, as above, that a large excess of proper food, or a less quantity of that more indigestible, may excite the bowels to increased action, to free themselves from the offending substance. This irritates the mucous membrane, and increases its susceptibility; and then the ordinary diet, in the usual quantities, is not digested, but acidifies, and is hurried through the bowels unchanged, devoid of the lacteal fluid, and maintains, if indeed it does not increase, that pathological condition upon which the diarrhœa depends. *The general and special pathological conditions* herein described, underlie most cases of *infantile convulsions*, which only require the agency of the exciting causes, to be fully developed.

The alimentary canal is sometimes so gorged with indigestible substances, that it is wholly unable to dispose of them, with all the increased vermicular motion which their presence excites; and they become, without manual assistance, hopelessly impacted in the rectum. I saw two cases, several years ago, both in American township, illustrative of this fact. The two cases were almost identical in all respects, except in regard to the offending substances. The children were both girls, aged about seven years. When I was called to see them, the bowels had not moved for two days—

the pain and tenesmus were frequent and extreme—the abdomen tender, somewhat tumid, and tense; the knees drawn up; the pulse small and rapid; the extremities cool and shrunken—with thirst and great restlessness. Castor oil would not operate, and the pipe of the syringe would only enter an inch or so—the fluid returning as fast as injected. The anus, in both cases, was so sensitive that the children had to be controlled by force, to enable me to examine the rectum. With the index finger, I readily detected the impacted substances, when I proceeded at once, but with difficulty, to remove them. From one rectum there came about half a pint of grape seed, so nearly dry and free from other substances, that they rattled in the tin vessel into which they were received. From the other, about the same quantity of hard, fibrous sour-crout—almost dry—which had been made from cabbage grown in summer on dry land. Under appropriate treatment, both cases recovered.

I need not allude further to the general *pathology* of the diarrhœa of infants. That is sufficiently considered in what I have read. Nor is it necessary to more than mention the special pathology, or pathological anatomy. For you all know that *diarrhœa is only a symptom* of morbid conditions of the alimentary canal, with, generally, some constitutional enervation. In one morbid state, or condition, the diarrhœa is simple—not depending upon inflammation, or, so far as we know, even congestion. The mucous membrane is found natural in appearance, or slightly reddened in some places; and in rare cases the solitary and aggregate glands are slightly enlarged. In other cases, frequently of longer standing, there is more evidence of inflammation. The mucous membrane, chiefly in the lower portion of the ilium and the sigmoid flexure of the colon, is red and thickened; both classes of glands are enlarged and elevated; the mucous membrane, and in chronic cases the solitary glands, are frequently found ulcerated. This constitutes ilio-colitis or inflammatory diarrhœa, and, when attended with pain, tenderness, tumefaction and fever, enteritis. When the inflammation is in the colon and rectum, with tormina, tenesmus, frequent mucous and bloody stools, it is dysentery. Occasionally in Sacramento, but vastly more frequently in the eastern cities of America, and, I believe in Europe, a mild case of diarrhœa will suddenly change into one with large liquid stools, rapidly increasing in frequency, resembling "rice water"—and sometimes in an hour or two becoming limpid and transparent; and usually attended with vomiting and speedy collapse. In this case, there is frequently no pathological change perceptible in the mucous membranes. I need not say that this, in America, is called cholera infantum.

In regard to the prognosis, increased quantity, fluidity, and frequency of the stools are unfavorable, especially if attended with

vomiting and great thirst. Retracted limbs, pain, tumefaction and tenderness of the abdomen, with fever and extreme thirst, indicate inflammation, and are unfavorable. In cholera infantum, clear, liquid stoods, rapid, feeble pulse, intense thirst and sunken orbits, are dangerous symptoms, and if attended with cool, livid surface, and dilated pupils, the case is nearly hopeless. If the child sleep with the eyes half open in all the varieties of the disease, it shows extreme prostration, and is dangerous. If restlessness increase, with constant rolling of the head, with frequent sighing, the cerebral difficulty is paramount, and the recovery need not be expected. This last condition frequently supervenes upon the cessation or abatement of the diarrhœa, and from sympathy with the bowels, through reflex nervous action. It has been considered as metastasis to the brain, but, more probably, is an extension of the disease. The reverse of all these symptoms is favorable.

Treatment. While treating of the etiology and pathology of the disease under consideration, I made no allusion to the liver. Recent and extensive investigations, both clinical and autopsical, by Smith, of N. Y., and other able pathologists, have failed to find any structural lesion, functional torpidity, or hypersecretion of that organ, sustaining a causative relation to diarrhœa, in any of its varieties. Hence, "alterative" treatment, designed to "regulate the hepatic secretion," is not only unphilosophical, but may be positively hurtful. Mercury, for ages, has been chiefly relied upon for this purpose. My belief is about confirmed that mercury does not influence, directly, the secretion of the liver. Then, to use it to correct a secretion which is not at fault, whilst it would have no influence upon that secretion if it were, would be doubly untherapeutical. It has been claimed for it, that it acts as a sedative upon the irritated or inflamed mucous membranes. To have this effect, as claimed, it would require doses large enough to act as a cathartic. Now, it is well known to produce *liquid* stools, if it act on the bowels. To increase the liquid stools, when they are already too frequent, too thin and too copious, would be equally unphilosophical. For fifteen years I have discarded calomel, blue mass, mercury with chalk, and all the other preparations of that substance, as an "alterative," in any of the forms of diarrhœa under consideration. They are, to my mind, not only not indicated, but are absolutely injurious. The same is true of all the other so-called alteratives, which have a laxative action.

In all the forms of diarrhœa, if the stomach and bowels are not free from undigested food, or scybala, a laxative is indicated, and when used early, may be all the medical treatment required. Castor oil acts well, and is safe; being partly digested if it does not operate. But in most cases I prefer one that will neutralize acidity—especially if undigested food is the exciting cause. In

the milder forms, where no laxative is required, or after its operation, bi-carb. of soda, with peppermint in syrup of anise, may be sufficient, to which paregoric may be added, if deemed necessary. Should it not yield in a day or so, sub-nitrate of bismuth, in four or five grain doses, to a child three to twelve months old, with phosphate of lime if there is nausea or vomiting—given after each stool, or every two to four hours, will usually answer the indications. I have not tried the bromide of potassium, as recently recommended, excepting when there were also convulsions.

In the severer forms, with frequent stools, green, dark, more or less liquid, containing undigested food, condensed casein from the milk, and transparent or tough, opaque mucus, etc., attended with restlessness, thirst and fever, there is congestion of the mucous membrane of the ilium and colon, and if of long standing, inflammation, with the raised glands, etc. Here the indications to be met are, to quiet nervous irritability, check the diarrhœa, and abate the fever. The first and second of these indications may be met by the two following prescriptions, premising, always, that the alimentary canal is free from all offending substances:

R. Vinum Opii, - - - - - - - gtt. xvj.
Ess. Menth. Pip., - - - - - gtt. xl.
Tinct. Catechu, - - - - - - dr. ij.
Sodæ Bi-Carb., - - - - - - gr. xvj.
Syrup Rhei. Arom., - - - - - dr. iss.
Syrup Anisi, vel. Simplicis, - - - q. s.
M. Ft. Sol. ad., - - - - - - oz. ij.
Sig. A teaspoonful after each stool.

R. Bismuthi Sub-Nit., - - - - - dr. iss.
Mucilag. Acaciæ, - - - - - oz. ij.
M. Sig. Shake well, and give a teaspoonful every four hours.

These two mixtures may be given as directed, alternating them as to time. But if there be nausea and vomiting, the former may be omitted, and calcis phosph., gr. ij., added to each dose of the other, and given every two or three hours, with sinapism to the epigastrium, until the nausea abates, when the other mixture may be resumed. For the relief of the fever, if considerable, with much tenderness of the bowels, aconite, or veratrum, with ipecac and bi-carbonate soda, may be used. In this last case, sinapisms or turpentine over the abdomen to produce redness, to be followed by simple cataplasms, or flannel cloths wrung from hot water, or hop or other herb tea. If the bowels are known to contain undigested food or scybala, and the stomach will retain no laxative, enemata may be tried. If all else fail to operate, calomel is more apt to be retained, and may act well as *physic*, but not as an *alterative*. I never use it, however, and think my cases are better treated without it.

After the bowels are somewhat checked, and the nausea is

relieved, and the fever reduced to a remission or an intermission, in all malarious or mountain localities it is of the first importance to give quinine in liberal doses, in combination with Dover's powder, or its equivalent in opium and ipecac. To a child one year old, three-fourths of a grain to one grain of each of the two first named, every three or four hours—continuing such other treatment as may be necessary. To conceal the taste of quinine, it may be combined with tannic acid and powdered extract of liquorice, given in powder; or the same in syrup of liquorice extract and anise. Many cases readily curable with the use of quinine, are scarcely curable without it. Its action seems to be, to invigorate the entire capillary system, and thus to sustain the healthy functions of all the organs, thereby preserving, unimpaired to the whole system, the full force and power of the vis medicatrix naturæ, on which we chiefly depend, after all, for the recovery. With this view of the *modus operandi*, its great usefulness may be extended to a large range of cases, in all other countries as well as in the malarious or mountain districts.

In cholera infantum, that the fluids of the blood are exhausted—drained off through the bowels—is evinced by the watery stools, the shrunken livid surface, the choked capillaries and the sunken orbits. To the above treatment vigorously pursued, should be added alcoholic stimulants, ammonia, or compound spirits of ether, or other stimulants, with beef or chicken tea in small quantities and often. If the head be unnaturally warm, cold is indicated. To the extremities dry artificial heat should be applied early, and continued. Ice may be given for the thirst.

In *dysentery*, with tormina, tenesmus, and frequent mucous and bloody stools, the colon and rectum are chiefly affected. To the treatment for the severer forms of diarrhœa, above recommended, may be added opiate and astringent enemata, with speedy relief. The menstruum should not exceed one or two teaspoonfuls, and the injection should be retained, if necessary, by supporting the anus with a napkin. These should be repeated, in severe cases, after each stool, until relieved; or if they be forced out immediately, as is often the case, three or four ounces of a solution of nitrate of silver, in flax seed tea, a grain to the ounce, or less, with laudanum, may be injected as far up the rectum as possible with safety, and allowed to return. This is especially useful in chronic cases. Ipecac, in large doses, is recommended in dysentery.

I have given but a brief outline of the treatment, which, however, is usually successful. It would trespass too much on your valuable time to allude farther to the extended therapeutics useful in these cases. Warm baths, friction, sulphuric acid, creosote, carbolic acid, and other vegetable and mineral astringents, and varied enemata, etc., might be dwelt upon. But the treatment herein recommended can be omitted, added to, or changed, to suit

special indications. I wish to say, however, that my chief reliance is upon alkalies, bismuth in large and often repeated doses, opiates and quinine; with carminatives, stimulants and local applications at discretion.

Admitting the general pathological views herein expressed, it is obvious that rational prophylaxis and hygiene, with proper regimen in health and during the disease, would save more infantile lives than all medication combined. The subject of *regimen*, in this disease, including diet and clothing, is worthy an entire paper. I beg to say, that there is no diet uniformly appropriate. It must be varied in different cases. For young infants, the mother's milk is the best; except when changed by her menstruation, or pregnancy. If that fail on any account, a healthy wet nurse should be procured if possible.

I have often found in the diarrhœa of infants, that a thin proridge of *groats*, or oat flour made with cream and water, sweetened with pure sugar, to which bi-carbornate of soda is added if the stools are green, will seem to save life. In other cases, soda cracker simmered in a new tin vessel until it becomes gelatinous, and sweetened, may be fed to the infant with the happiest results. Where there are nausea and vomiting, no diet has answered so well in my observations, as chicken tea—made from the flesh of the fowl—free from the skin and fat. It should be rich in the elements of the meat, and seasoned to the taste. It is nearly always relished. Beef or mutton tea, is nearly equal in its effects. For valuable formulæ for infantile diet, see Professor Smith's work on diseases of children.

Great attention should be given to the clothing. It is important to keep the body and limbs well protected with flannel. Although my patients are small, the subject of their ailments is large.

"Great men from little babies grow."

—*Pacific Journal.*

What may be Really Learned from Microscopic Examinations of Urine. By JAMES TYSON, M.D., Lecturer on Microscopy and Urinary Chemistry in the University of Pennsylvania.

Few subjects are more imperfectly understood by the mass of general practitioners than that of Urinary Microscopy. Many physicians think that if a specimen of urine is handed to a microscopist for examination, the latter must be able to give such copious and precise information as will unravel all the mysteries of the case, and furnish the key to a speedily successful treatment, or

else the instrument is condemned as an expensive luxury, which, if not useless is scarcely of sufficient utility to justify the outlay necessary to procure it. It is indeed true that in a large proportion of instances the information furnished by a microscopic examination of the urine is limited, and that in a smaller number of cases its results are entirely negative.

It is in consequence of the fact that many instances of unrealized expectations have come under my observation, that I have presumed to occupy a portion of this evening in considering the real advantages which may be looked for in a study of urine with the microscope.

Premising that such a range of power as is obtained by two objectives, an 8-10 and a 1-5 with two eye-pieces, an A and B, or a low medium power—that is from 80 to 400—will most usefully subserve our purposes, we may divide urine which is to be studied microscopically into *albuminous* and *non-albuminous*.

Albuminous Urine.—The urine with regard to which we may expect to derive most information, and in the study of which the microscope is indeed indispensable, is albuminous.

The first question to be determined with regard to albuminous urine is as to whether it contains casts of the uriniferous tubules. This question answered affirmatively, the general affection, Bright's disease, is recognized; the form of cast found to be most prevalent in connection with the quantity of albumen, and especially with the aid of the clinical history, enables us to determine the special form of Bright's disease, whether chronic or acute; and if the former, whether due to the smooth white kidney, the highly fatty organ, or the chronically contracted kidney, and even amyloid disease, with considerable certainty. And thus informed, matters of prognosis and treatment follow, the value of which no one can deny.

On the other hand, it is exceedingly seldom that the microscope enables us to decide the existence of cancerous from that of other destructive diseases of the kidney, as calculous pyelitis, the common purulent products being undistinguishable. Still less are we able to say, by means of the microscope alone, with regard to a limited number of pus or mucous corpuscles, that they are derived from the kidney rather than the bladder; at least, all attempts to this end are too speculative to be admitted to a place among the positive informations furnished by microscopic examination of urine.

Among the causes producing albuminous urine without the presence of casts, is the presence of pus; and although the same corpuscular element attends which is found in mucus, the albumen never accompanies mucus alone, while the distinctive characteristic mucin-threads developed on the addition of acetic acid to mucus furnishes the crucial information. This is apart from the

physical characters of purulent urine, involved in the ready miscibility of the pus with the urine, its rapid subsidence and opacity as distinguished from the difficult miscibility of mucus, its transparency and slow deposition after mixture has been produced. Although albuminous urine, which is due to pressure upon the renal vein by a tumor or pregnant uterus, sometimes contains casts when the obstruction has produced actual congestion, this is comparatively rare, and the comfort which is derived by the practitioner from a knowledge that the albuminous urine of a pregnant woman does not contain casts, which the microscope alone can tell him, is unspeakable.

Urine which contains blood, from whatever source derived, is also albuminous. Except, however, when blood corpuscles are contained in casts of the uriniferous tubules, which indicates their undoubted renal origin, it can scarcely be claimed that the microscope is of much service in determining the exact source of the blood. It is rather the grosser characters, as the presence of coagula when blood is derived from the bladder, and the smoky hue of acid urine containing blood from the kidney, that gives us the desired information.

It is comparatively rare that albuminous urine results from affections of the bladder and prostate, except as the result of hemorrhage in malignant disease of the latter organs. In non-hemorrhagic malignant disease, attended by suppuration and rapid destruction of tissue, the urine may become impregnated with albumen, which will be explained by the presence of pus, and occasionally of fragments of tissue composed of the large multinuclear cell-masses, formerly considered so characteristic of cancer. In these cases, the almost inevitable though not indispensable accompaniment of vesical irritation will point to the bladder rather than the kidneys.

In the limited number of instances in which I have been permitted to examine the urine of patients who, as revealed by a *post-mortem* examination, suffered with cancer of the kidney, although albumen has been invariably present, I have never yet seen the cellular or other elements of cancer—nor, indeed, in cases of cancer of the bladder, though, in the latter, other observers have undoubtedly been more fortunate.

Non-albuminous Urine.—It must be admitted that the purely microscopic study of non-albuminous urine is not attended with so many advantages to the practitioner as that of albuminous. Still, there are numberless instances in which, at least, the clinical history of a case is not complete without a microscopic examination.

In no instance, perhaps, is the inexperienced person more frequently disappointed than in the examination of urine from cases of suspected calculi, both renal and vesical, but particularly the latter. Indeed, it may be laid down that, as a rule, except in uric

acid lithiasis, the microscope alone rarely furnishes much information. To those who have had any experience, it is well known that in cases of phosphatic and oxalic lithiasis, the urine is commonly without any sediment, from the examination of which alone information can follow. With uric acid lithiasis, however, this is not the case, and very generally patients thus suffering have copious deposits of uric acid crystals. In the latter, therefore, we are able to make a positive diagnosis. The difficulty in the case of the phosphates is accounted for by these facts: The extreme solubility of the phosphates, and the dependence of their deposition upon the alkalinity of the urine; and in case of an exciting calculus, its power to excite, by decomposition of the surrounding organic matter, an alkalinity of the urine immediately around it, with consequent deposition of phosphates from such proximate urine, while the reaction of the great body of water continues acid. Occasionally, also, in the case of suspected oxalic calculus, information is derived by examination of urine from the constant presence of octohedral and dumb-bell crystals of oxalate of lime, especially if these be aggregated so as to form microscopic calculi of considerable size, as is often the case. If the symptoms of renal calculus are present, and such crystals be met repeatedly, we have good reason to believe that the calculus is of oxalic composition.—*Southern Medical Record.*

Epidemic Cerebro-Spinal Meningitis. By EDWARD MONTGOMERY, M.D.

This disease, under different names, has prevailed to a considerable extent, both in this country and in Europe, since the beginning of the present century. From the descriptions given by various writers of the fourteenth, fifteenth, sixteenth and seventeenth centuries, it is probable that it visited different parts of the old world, but of this we are somewhat uncertain, because of the absence of a very minute and comprehensive clinical history of the cases, and for the lack of post-mortem examinations. "The first well-authenticated epidemic of the disease in this country occurred in 1806, from which time until 1816 it was constantly epidemic, particularly in the New England States, upon which it seemed to fasten." (*Clymer.*) From 1806 until the present time, partial epidemics and sporadic cases occasionally occurred both in the old and in the new world. In 1845 and 1846 it broke out in Illinois, and was there called "black tongue." In 1847 it prevailed in Mississippi, Tennessee, Missouri and Arkansas, and during our late civil war it occurred occasionally in both armies.

(*Clymer.*) In 1846, a very severe epidemic of it broke out in the city of Dublin, Ireland, where it principally prevailed in the work-houses and hospitals, although there were many fatal cases in healthy parts of the city, and where many fell victims to its virulence whose surroundings were unexceptionable.

Dr. Simon, of London, a very high authority, says, that "soldiers in barracks, the inmates of jails and poor-houses, the inhabitants of crowded, filthy streets, and every place where filth and bad ventilation prevail, are its favorite resorts." But in this country we know that it has devastated little hamlets in the prairies, fastened its unrelenting grasp on the scattered denizens of our newly-settled districts, and prevailed for years together in the healthiest portions of Pennsylvania and Massachusetts. "Notwithstanding its wide geographical distribution, there is no corresponding diffusion amongst any one population during its prevalence, it, as a rule, being limited, during an outbreak, to certain localities, and to certain portions of the population of such localities. The distribution of the disorder seems to be by a series of isolated eruptions, rather than by general spreading." (*Clymer.*)

This is one of its strange peculiarities and anomalies; it will break out in certain neighborhoods, and in certain families in such neighborhoods, without our being able to discover any cause for such predilection. Sometimes it will prostrate a whole family at once, and again carry off one in a large family and the rest all escape; in this respect differing very much from cholera, influenza, or small-pox. Like cholera and influenza it seems to be caused by some toxic principle in the atmosphere, and by it carried to different portions of the world; but unlike those epidemics, it does not appear to spread by contagion or infection; neither will the effluvia, emanations, or excrements of the sick, propagate the disease, as I have abundant evidence of the fact; often have I witnessed the small, close chamber, where a patient was dying, crowded with the neighboring children, and yet none of them becoming infected with the disease. Another peculiarity of the disorder is its varying symptomatology. In 1847, when it prevailed in Missouri, Mississippi, Tennessee and Arkansas, the fauces, throat and respiratory organs were implicated to such an extent that it was called "black tongue," "typhoid pneumonia," etc. In 1846, in Dublin, the cases had nearly all an extensive purpuric eruption, so that Dr. Stokes and others termed it purpuric fever; whilst in other epidemics, in other parts of the world, the type of the disease seemed of a congestive character, and so suddenly fatal, that it was called the "plague," the "*Malum Egyptiacum*," etc. And again, as in the present epidemic in this city, the spine and brain symptoms so predominate that the term cerebro-spinal meningitis seems alone to be appropriate, and to be generally employed. The term "spotted fever" has also been given to it in

different parts of this country, but all these names belong to the same disease, manifesting itself under different types and forms, nearly all exhibiting the same morbid anatomy—a congestion of blood in the expanded vessels of the cerebro-spinal system, with more or less effusion and exudation of serum, semi-organized lymph or pus, and sometimes softening of portions of the brain and cord. It is true that Dr. Woodward, Chief of the U. S. Army Medical Bureau, says that many of the cases reported by different army surgeons, during the war, to his office, presented no signs of inflammation or structural lesion of any kind in the brain, cord, or membranes, and that this exemption from morbid changes in those parts, is not to be accounted for on the supposition that death had occurred too soon for those pathological appearances to be developed, since this freedom from structural change was also observed in cases where death had not ensued suddenly. But, on the whole, it is sufficiently evident from the signs and symptoms during life, and from the post-mortem evidences, that the cerebro-spinal system is the part principally involved, or at least that it is there wherein the disease most forcibly manifests itself. According to Stille, Clymer, Condie, Hirsch, Wunderlich, Neimeyer, Mayne and others, the morbid anatomy of the disease consists in an expansion of the vessels of the cerebro-spinal system, a superabundant quantity of blood in those vessels; this congestion and vascularity is especially seen in the pia mater, and when the patient has died early in the disease; an increased amount of clear, turbid or flocculent serum in the sub-arachnoid space, and in the ventricles; even in cases of the briefest duration there is an exudation of thick, pasty, semi-organized lymph, of a greenish-yellow color, on the base of the brain and medulla oblongata; the membranes at this stage are dry, and sometimes adherent to the brain or to each other. The cerebro-spinal fluid is increased, and portions of both brain and cord are found occasionally softened. When the disease has lasted for some time, the cerebral exudation is soft, opaque and yellowish, two or three lines in thickness, and may be compared to soft butter spread over the brain; or it may be denser, and have a pseudo-membranous look. It is found chiefly along the course of the vessels, and small in quantity, limited to and ramifying with them, or it may be in little irregular patches of variable size scattered over the brain surface, or covering the pons or medulla oblongata or cerebellum or parts of the cerebrum, or it may completely envelop the cerebrum, cerebellum and intracranial cord. Commonly superficial, it may dip down with the pia mater among the convolutions, or be found in the ventricles, or hanging and thickening, with an opaque, greenish pus, the serous fluid of the whole cavity. Purulent infiltration of the choroid plexus, and superficial softening of the walls of the ventricles, have been also observed. (*Clymer.*)

Pus, or purulent lymph, has also been found in the spinal canal, as well as in the base of the brain, in cases which have been somewhat tedious in their course. In nearly all the cases the expanded cerebro-spinal vessels have been found full of this black colored blood, and in some cases, fibrinous clots have been found in the heart after death. (*Stille.*)

As before intimated, this disease presents different forms or types in different epidemics, in different countries and even in the severe epidemic, and among the same class of patients. In some cases it is ushered in without any appreciable premonitory symptoms whatever, the patient being suddenly stricken down as by some fell poison, becomes delirious, tosses about for a few hours, tries to vomit every few minutes, with sighing and slow respiration, the skin dusky, the eyes suffused and sunken, and death by coma in ten to twenty-four hours. Occasionally these fulminant, blasting, or siderant cases, as they are variously termed, are accompanied with profuse diarrhœa, vomiting, and convulsions.

The tetanic form of the disease is more tedious in its progress, and of course more amenable to treatment; it is generally ushered in with chilliness, nausea, headache, frequently a general hyperæsthesia, or pains in some or all of the joints, sometimes sore throat, with pains in the ears; although there is some thirst, and the mouth is dry, but sparing drinks will be indulged in, the patient soon becomes much worse, there will be great jactitation, the cephalalgia will become more intense, the eyes will become suffused and injected, the face flushed, the head drawn back, the pulse quick, the bodily temperature from 100° to 103° F.; a trembling of the extremities when the patient is moved, intolerance of light, pupils contracted at first, but when exudation has taken place the pupils may be dilated or irregular, and the pulse or temperature may be abnormally reduced. In some of the cases an erythematous, eczematous, or purpuric, a morbillous or herpetic eruption may appear; but an eruption of any kind is not present in one-third of the cases, hence the misnomer of spotted or purpuric fever. There is often great deafness, apathy, and in all cases early prostration. When the case is severe the patient is terribly racked with the cephalalgia and pain in the throat and upper part of the spine from the tetanic contractions; but a few minutes' rest at a time can be indulged in, the patient suddenly waking up with piercing cries or low moans, and talkative delirium, or convulsions, or complete coma, may close the terrible sufferings. In tedious cases partial paralysis sometimes occurs, and the deafness occasionally remains permanent. Sometimes, also, vision is permanently impaired, and strabismus may result from the attack.

Dr. Kempf, in writing about a severe epidemic of this disease which occurred in the spring of 1863, in Dubois, Spencer and Perry counties, Illinois, describes three forms, which he names

respectively, cerebro-spinal asphyxia, cerebro-spinal inflammation, and cerebro-spinal irritation; the first variety, he says, carried off the patients in many instances in a few hours, and no treatment seemed to have any effect. These fulminant cases were ushered in with chills, vomiting, diarrhœa, violent headache, soon followed by lethargy and extreme prostration, complete apathy, stupor as if profoundly intoxicated, the eyes suffused and injected, the skin covered with dark crimson or purple spots, coma and death. The inflammatory, or tetanic form, was also ushered in with chilliness, vomiting, headache, suffused countenance, injected eyes, apathy and debility. In a short time the head was retracted, the throat and neck painful, the petechial or purpuric spots appeared, and if not cured, delirium, convulsions, or coma, closed the scene. For these cases the treatment was bleeding, purging, plenty of calomel, veratrum viride, quinine, camphor, and opium. The doctor says he thinks bleeding and counter-irritation do harm, but the other remedies he employed seemed to save some cases. For the third variety—the cerebro-spinal irritation—morphine and quinine were all that were necessary to insure convalescence. Dr. McVey, of Morgan county, Illinois, reports his treatment for the disease as it appeared in 1863 and 1864 in that section of the State: it consisted in a moderate use of aperients and alteratives, friction to the spine and extremities, large doses of opium, four or five grains of opium with six or eight drops of Fowler's Arsenical Solution every four hours, blisters to the back of the neck, and if the cases were prolonged he also gave strychnine. He says this treatment proved rather successful, but we apprehend very few physicians would venture on such a free use of opium in this disease. Dr. Brown, in the same region of country, also reports his meeting with much success from similar treatment. (*Transactions of Illinois Medical Society.*) Dr. Liddell reports some cases treated by him in the Washington City Hospital, in 1864, in which his favorite remedy was opium, and he attempts to account for the beneficent action of this drug on the ground that it has the effect of preventing effusion from serous membranes. In one of Dr. Liddell's reported cases the patient was seized with the disease whilst taking quinine for an attack of ague, from which he was convalescing. This does not speak well for the remedial virtues of quinine in cerebro-spinal meningitis.

In the April number of the *American Journal of the Medical Sciences* for the year 1864, there is an article by Dr. Burns, on this disease as it occurred in the vicinity of Philadelphia, in which he advocates leeches, venesection, frictions, blisters, purgatives and quinine. He reports the particulars of some very alarming cases which almost miraculously recovered under this antiphlogistic treatment. If we examine the pages of the *Medical Press and Circular* of Dublin for 1867, we will find many cases exact counter-

parts of those of Dr. Burns which died under a stimulating treatment. Dr. Black, of Newark, Ohio, in the same journal, takes the opposite ground, and protests against antiphlogistics in all cases, and affirms his belief in the efficacy of tonics only. Indeed, in looking over the medical journals for 1863, '64, '65 and '66, although epidemics prevailing in different sections of the country during those years are presented to us with great uniformity of description, the same vivid picture of the malady being almost exactly reproduced in every instance, there is much contradiction and discrepancy with regard to the treatment.

Professor Wunderlich describes the disease as it appeared in Germany in 1863; its symptomatology and morbid anatomy as given by him is a counterpart of that delineated by numerous observers in this country. His treatment consisted in local depletion in sthenic cases, ice to the head, but not to the spine as there he observed it did more harm than good. Morphine, he says, allayed the pain in one case and it finally recovered, but chloroform inhalations and as a liniment was also used in the same case. Iodide of potassium was given in three cases which terminated in cure; he therefore recommends it, especially in protracted cases. He says there was no evidence of the disease being contagious or infectious.

Dr. Condie, in his report of the diseases of Philadelphia county for the year 1864, in the transactions of the Pennsylvania State Medical Association, treating of this malady, says that for the algid form he had tried alcoholic and diffusible stimulants with quinine, and externally used liniments, sinapisms, frictions, blisters, hot baths, etc., but without being convinced of their having the least good effect on the disease. For the tetanic form he chiefly relied on opium and quinine internally, and on frictions, liniments, blisters and dry cups along the spine, especially to the upper portion. An infusion of half an ounce each of cimicifuga, wild cherry bark, serpentaria and sassafras bark in a quart of boiling water; a wine-glass of this infusion every three hours seemed also to do much good.

Dr. Githens, in his report of the cases treated by him in 1866 and 1867, in the Philadelphia Hospital, says that his principal measures consisted in ice to head, blisters to nuchæ, veratrum viride, carbonate or muriate of ammonia, spirits of nitre, stimulants and nutrients. He was in the habit of giving thirty-six ounces of whisky, and the same amount of beef tea in the twenty-four hours. In one or two cases out of the ninety-five treated he prescribed the *secale cornutum*.

In the *Medical Press and Circular* for June, 1867, we find the disease described as it occurred in Ireland; the treatment there generally adopted was brandy, beef tea, carbonate of ammonia, musk, ether, belladonna, turpentine, and in a few cases quinine and

iron. From the reports of the cases this highly restorative treatment proved very unsuccessful. On the other hand, the French physicians bled their patients and had far greater success. Niemeyer, in his monograph on the disease, was also in favor of abstracting blood, and giving calomel freely: the latter, to say the least, is of doubtful efficacy except as a purgative.

In our city, in 1863 and '64, Dr. Ira Russell reported a number of cases in the *St. Louis Medical Journal* which occurred amongst the soldiers at Benton Barracks. About fifty cases had occurred at the time of his report, one-half of whom had died. The treatment was, during the period of collapse, alcoholic stimulants, capsicum and quinine, mustard emetics, and sinapisms to the surface. Opium seemed to exert a happy influence in controlling the delirium. After the reaction pillula hydrarg. and salines have been followed by good results, but as a general rule antiphlogistic treatment has been poorly borne. Cups to spine, iodide potassium and tonics, are the best remedies in the advanced periods of the disease. It is curious to observe how very seldom the *secale cornutum* or the iodide of potassium was prescribed in former times, although these seem now to be the favorite remedies with many practitioners. From the numerous reports of cases which I have examined I have been also surprised at the great differences of opinion with regard to the use of quinine and blood letting. Some believe that quinine is the main remedy, whilst others affirm that it never has a curative action, but often inflicts great injury, but I believe these discrepancies can all be reconciled when we reflect on the different types of the disease in different epidemics and in different localities. With regard to cupping, leeching and purgatives, the same contrariety of opinion prevails, and may be explained in the same manner, for antiphlogistics will be salutary or pernicious according to the form and type of the disease, and the constitutional stamina of the patients. As before intimated, there is a great uniformity in the different reports I have examined as to the signs, symptoms, course of the disease and its morbid anatomy. One fact stands out prominently in all the reports of the symptoms, and that is, the sudden apparent prostration of the patient; I say *apparent* prostration, for I contend that this symptom here is the result of the poisoned condition of the blood, its engorgement in the vessels of the cerebro-spinal system, and the resulting functional disorders of respiration, digestion, sanguification, etc. The great prostration so early existing in this disease is entirely different, especially as an indication of treatment, from the prostration resulting from loss of blood, from any wasting evacuation, or from prolonged bad health. In this disease the general debility is, in part, caused by a redundancy of certain matters in the blood, and by an engorgement or congestion of that diseased blood in the vessels of the cerebro-spinal system, whereby the

nerves supplying the organs of respiration, circulation, digestion, etc., are seriously involved; whereas the debility existing from loss of blood, from profluvia, from long continued bad health, etc., results from want of nutritive elements and from a wasting of the tissues. Another fact which stands prominent in this disease and which is noted by all observers, is the expanded condition of the blood vessels of the cerebro-spinal system, and their engorgement with abnormally fluid, dark colored blood. Very often this is the only morbid condition found on post-mortem examination, although in most cases there is a superabundant exudation, sometimes fluid like pure serum, sometimes containing flocculi, and sometimes a semi-organized plastic material like butter, and again purulent lymph or pure pus. Now taking these prominent facts into consideration, the indications of treatment seem to be to endeavor to prevent that stasis or local engorgement if it has not already taken place, or to remove it if it has; to prevent exudation, or obviate and resist its evil results if it already exists; to restore the blood to its normal healthy condition; and to assist the natural vital processes so as to enable the system to bear up under the deteriorating influences of the malady. In those cases resembling pernicious intermittent or congestive fever, the algid cases of Dr. Condie, hot water baths containing salt and mustard, frictions with tincture of capsicum and camphor, and the internal use of sulphocarbolate of sodium, sulphurous acid, sulphite of soda, permanganate and chlorate of potash, applying any of these which seems to agree best with the patient. These antiseptic remedies should correct the toxæmia existing, and with that view should be given freely and frequently, and in a chemically pure form. Small quantities should be prepared each day, so that they would be always fresh and unchanged. As soon as they can be administered with any prospect of happy action, iodide of potassium and the fluid extract of ergot should be given, the former to promote the absorption of the exudation, and the latter to constringe the expanded blood vessels. Quinine and a small quantity of opium will also do much good in these algid cases; the former will greatly assist the antitoxæmic remedies, and the latter will prove beneficial in the first stage of the disease from its power in preventing exudation. Of course nutrients will be necessary, but they should be of a fluid form, such as beef essence, rich milk, cream, soft boiled eggs, etc., etc. The great difficulty in this form of the disease, is that the whole system is so completely overwhelmed by the toxic power of the malady, that no remedy has the time or the power to act, death occurring so suddenly, or the processes of organic life so completely in abeyance, that no effect is produced.

In the tetanic form of the disease, those cases which seem to be of a more inflammatory nature, besides the hot bath, in the first stage, cups or leeches to the nuchæ and down the spine, or behind

the ears, will be of decided advantage. The form of purgative I have thought best, has been calomel and jalap, some prefer calomel and colocynth, or calomel and aloes, from the belief that the colocynth and aloes have the effect of acting on the lower intestines and as derivatives from the brain. As there is often great nausea, and consequently purgatives administered by the mouth may not be retained, in such conditions enemata of oil and turpentine, or decoction of aloes, may be given. As soon as the bowels are evacuated, the antiseptics should be freely given, and alternating with them the fluid extract of ergot, to resist the expansion and engorgement of the blood vessels. The tincture or fluid extract of the calabar bean has been recommended for the same purpose, but of that I have had no experience. I would rely on the cups and leeches, the purgatives, and the ergot of rye, to prevent the effusion of these tetanic or inflammatory cases, as I have witnessed severe coma to ensue after the use of opiates, but whether *propter hoc* or merely *post hoc*, may be a question to be decided in the future. Instead of the cups or leeches and purgatives in these cases, some recommend the veratrum viride, but from what I have experienced in my own cases, and from what I have read of the results of the treatment by others, I believe this powerful arterial sedative is contra-indicated in this disease. Gelseminum and digitalis have also been highly recommended by some, but I have had no experience with them in this affection. Quinine combined with opium in the very beginning of the disease, and without the opium in the commencement of convalescence, will be found a valuable remedy, but after the effusion has taken place, and as long as we have evidence of the existence of extensive exudation, this alkaloid may prove a dangerous medicine. In the very commencement of the attack opium may do good in preventing effusion, but in all other periods of the disease it is a perilous appliance. The great hyperæsthesia, cephalalgia and mental disturbance will be more safely remedied by venesection, leeches or cups, purgatives, free doses of the bromide of potassium, warm baths, and frictions with a liniment composed of chloroform and tinctures of opium, aconite root, capsicum and camphor. After exudation has taken place, the iodide of potassium will be found of essential service. I have witnessed numerous cases with slow intermittent pulse, deafness, slow breathing, irregular pupils, apathy and stupor, and in some partial paralysis, which happily recovered under the use of the iodide. Of course in these cases it would be well also to blister the nape of the neck, or over the mastoids.

In young children the bromide is often substituted for the iodide of potassium; in these young patients I am very decidedly opposed to opiates in any form of the disease, as coma will assuredly soon follow their administration. As before remarked, fluid nutrients

should be frequently administered, and good ventilation and the best possible hygienic and sanitary measures should be sedulously carried out wherever this fearful scourge prevails.

I have cited the treatment adopted by different physicians in different epidemics, occurring in different countries, and from the comparative clinical statistics deducable from them, I am convinced that an opium treatment, a quinine treatment, or a stimulant and highly restorative treatment, are all incompatible with the true pathology of the disease. That an extreme antiphlogistic treatment would also be pernicious, I have not the least doubt; and I also feel convinced that veratrum viride, aconite, gelseminum and calabar bean, are hazardous remedies in this protean disease. If opium is to be used at all it should be in the very commencement of the attack; for the only reason that I can discover for its employment is its reputed powers of preventing serous exudation; and if it is given after the exudation has occurred, it will likely imperil the life of the patient, by encouraging the full development of the comatose condition. In a disease characterized as this is, by a congestion or engorgement of the blood vessels of the cerebro-spinal system, I cannot see the rationale of administering quinine, unless in cases complicated with malaria and intermittent in their character, or as a tonic in convalescence, when the congestion and exudation are both removed. If we carefully examine the results of a stimulating and restorative treatment, as detailed of the different epidemics in Massachusetts, in Pennsylvania, in Ohio, in Illinois, in Missouri, and in Ireland, we will be horrified at the great mortality. In these different places we can see the detailed reports of numerous cases of the tetanic form of the disease where the patient lived long enough to permit the action of medicine to take place, and yet the cases nearly all died under quinine, opium and stimulants. From sixty to seventy-five per cent. died in these epidemics, whereas the rational and scientific treatment now adopted—this treatment which is founded on a just recognition of the pathology and morbid anatomy of the disease—will save at least seventy per cent. of the cases.

To epitomize what we consider a rational and scientific treatment, we would say, that in the fulminant, siderant or blasting cases, and in those cases which run a rapid course, accompanied by purpuric eruptions, in other words, the variety which has been variously named cold plague, malum Egyptiacum, black tongue, etc., and the form denominated spotted fever or purpuric fever, putrid fever, etc., we would use hot salt and mustard baths, chlorate or permanganate of potash, sulphurous acid, sulph. carbolate of sodium, bisulphite of soda, etc., and afterwards quinine and phosphoric acid. Chemical physicians have quite recently suggested the cautious trial of the carbazotate of ammonia in these algid forms of the disease, giving one-fourth of a grain, in the form of a small pill, every four

hours. In the tetanic form of the disease, we would rely on sinapisms, hot baths, leeches, cups, or venesections, ice to the head, frictions, free purgation, followed by opium, or opium and quinine in the commencement of the attack, the bromide and iodide of potassium, and the fluid extract of ergot; the bromide and ergot to be given before the exudation, and the iodide afterwards. Quinine we would use, in all cases complicated with malaria, in the beginning of the disease, or as a tonic to assist in promoting a favorable convalescence after the exudation has been removed. To essay the mitigation of toxæmia, some of the antiseptic remedies alluded to may be advantageously administered during the early periods of the malady. Of course, the best possible sanitary and hygienic measures should be enforced, and the patient should be supported by fluid nutrients, and tonic medicines judiciously administered after the inflammatory symptoms have abated.—*St. Louis Medical and Surgical Journal.*

Gelseminum as an Antiperiodic. By WILLIAM W. MURRAY, M.D., Professor of Materia Medica and Therapeutics in the College of Physicians and Surgeons, Baltimore.

Since the accidental discovery of the febrifuge virtues of gelseminum, its use in febrile and inflammatory diseases has been known to the profession. From some it has received the highest encomiums as an antiphlogistic and febrifuge; by others it is but little esteemed. While I am among those who think well of this drug in its power of reducing the inordinate action of the heart in inflammatory affections, it is not the object of this paper to discuss its virtues in diseases of that kind, but I desire to call the attention of the profession to its antiperiodic powers.

I have not had access to all the articles which have been written on the medicinal properties and uses of gelseminum, but so far as I am aware, its antiperiodic effects were first made public by Dr. E. A. Anderson, of Wilmington, N. C., in an article which appeared in "Tilden's *Journal of Materia Medica*," of 1870, either the October or November number. I need not refer to Dr. Anderson's paper, or to a private communication from him on the subject, further than to say that by the strength of his assertions that gelseminum will radically cure malarial fevers, I was induced to make use of it in those affections, in order to satisfy myself whether it was entitled to rank as an antiperiodic. While the cases in which I have employed it are not very numerous, the results were of such a character as to convince me, at least, that it is not only equal to quinia in breaking in upon the chain of morbid phenomena

which characterize intermittent fever, but that it is infinitely superior to that article in curing the disease. It is tasteless and cheap, both of which are additional advantages which it possesses over quinia.

On May 14th, 1872, I was called to see Mrs. B., who was laboring under an attack of intermittent fever, of the tertian form. I determined to put her on gelseminum, especially as she was pregnant, in which condition quinia is considered by some physicians somewhat dangerous. Accordingly after opening the bowels and appealing to the liver, I prescribed the tincture of yellow jessamine in five-minim doses every hour until it produced heaviness of the eyelids, dilated pupils, or double vision; the same course to be pursued for four or five days successively. She has had no return of the disease in any form since, although she passed through the entire miasmatic season in the same locality.

The next case of intermittent fever which fell to my care was that of Mrs. P., on the 24th of May. She had suffered frequently from this affection, and she implored me not to give her quinia, as it affected her very distressingly. She seemed as much surprised as delighted when I informed her that I had no intention of giving the much dreaded medicine. I ordered tinct. gelsemini, in the same doses and with the same directions as in the preceding case. She has had no chill since then to the present, January 3rd, 1873.

On 5th July, 1872, I was called to see a little boy, whom I found laboring under an attack of remittent fever. Gelseminum was ordered for him, and on the third day my visits ceased, the disease having entirely yielded.

On the 14th of July I visited Miss P., who had remittent fever. As the case presented some pretty severe symptoms, and not wishing to risk anything (knowing that the quinia treatment, if properly managed, was indorsed by experience), I urged quinia, which she consented to take after a great deal of persuasion (she had taken it before in a similar attack, and, as she said, "it nearly set her crazy"), but she had swallowed only a few grains, when it affected her so unpleasantly that she could not be induced to take any more. I then ordered gelseminum, which cured her. The disease, in this case, did not yield so readily as in that of the little boy referred to, for two reasons: 1st, it was a much more severe attack; and 2nd, she would not continue the medicine faithfully, according to directions, but as soon as she began to feel better under its use, she would cease taking it. As regarded the antiperiodic treatment, it was the only drug used, and she made an excellent recovery.

The last case which I will mention is that of Miss C., who had tertian ague. Quinia had always arrested the paroxysms, but only temporarily. I gave her blue pill and compound ext. colocynth,

each gr. vj., and then put her on the yellow jessamine. This was about four months ago, since which time she has had no return of the affection.

I may remark that in the use of the gelseminum, I am governed by the effect produced, whether the quantity required to produce that effect be small or great. I give it generally in five-minim doses, and I think this the safest plan, because the effects can be regulated exactly; whereas, if large doses be given, we may have an overwhelming effect produced at once, which would be at least alarming, and possibly dangerous.

I have been induced to narrate these cases, in the hope that some of the readers of the *Reporter* will test for themselves the antiperiodic virtues of gelseminum, and record the results of their experience for the benefit of the profession at large.—*Medical and Surgical Reporter.*

On Acute Articular Rheumatism. A lecture delivered at Bellevue Hospital, by AUSTIN FLINT, M.D., Professor of Practical Medicine, etc. (Reported phonographically for the Record).

GENTLEMEN:—My remarks to-day will be upon the subject of acute articular rheumatism, and they will be based upon the history of this man's case who is now before us. His name is P., æt. 22, Norwegian, and by occupation a blacksmith. To-day is the tenth day of his disease. I may here remark, that this disease, especially in its acute form, is not very frequently seen in this hospital. The present case does not show the disease in its acute form, for the patient is apparently approaching convalescence, yet it will serve to illustrate some of the important points pertaining to this disease. The word rheumatism is a term which has been used with a good deal of latitude, and under this name several different affections have been taken in, such as certain neuralgic troubles, certain affections of the muscles, and certain affections of the joints. When, however, we use the term articular rheumatism, we refer to a very distinct and clearly defined affection. It is a constitutional affection, characterized by local manifestations, consisting in an inflammation generally affecting several joints of the body, and not infrequently fibrous structures elsewhere than in the joints. It is an affection which usually attacks the greater part of the joints of the body, and these articular affections are but the local manifestations of the constitutional disease. These local affections are in certain points distinguishable from ordinary inflammation of analogous structures. We have no suppuration, none of the inflammatory products, no production of new tissue, which we might expect in ordinary inflammation, and these are essential points of difference

which characterize these local manifestations of articular rheumatism. Another point which is very striking is, the inflammatory condition frequently subsides and disappears in a very short time; one day it is present, and the next day perhaps it may be entirely gone. The occurrence of these local manifestations in different joints successively is also a striking feature of the disease, as one joint may be affected to-day, and another to-morrow. Another feature which goes to show its constitutional character, and establish what has been said with regard to the local manifestations, is, the joints are affected symmetrically. The law of parallelism is strikingly illustrated in this disease; corresponding joints on both sides of the body are affected, and it is seldom that the strict law of symmetry is violated. If the joints upon both sides of the body are not affected, it does not violate the law, but it is simply the fact that the law is not illustrated. If corresponding joints are not affected, analogous ones are affected, such as the wrist and ankle perhaps, but an affection of the wrist and knee joint upon different sides of the body is rarely seen. This man is 22 years of age, which illustrates the fact that rheumatism, primarily, affects young subjects. A person, however, who has had the disease in early life, will be subject to repetitions of attacks ever afterwards, thus showing a constitutional tendency. Acute articular rheumatism also belongs among those diseases which are inherited, or rather, to which a predisposition may be transmitted. This man has generally had good health, and this is the first attack of the disease he has ever had. He was attacked in the day-time. It is more frequently the case that the patient is attacked in the night-time. The disease generally attacks suddenly, yet in a certain number of cases, the acute attack is preceded by more or less soreness and tenderness about the joints. As we look at the history of this case, we see that for two or three weeks this man had felt soreness in the joints, but not sufficient to prevent him from continuing in his occupation. The first manifestations which he had were in the smaller joints of the hands and feet; the carpal and metacarpal and tarsal and metatarsal joints. It first appeared in the right hand, then in the left foot; then in both knee-joints; then in both wrists; then in both shoulder-joints; and then in both hip-joints. The law of parallelism, it will be seen, was very well illustrated. At the present time the joints are comparatively but little affected. I deem it hardly necessary to dwell at any length upon the local symptoms, such as the pain and swelling which accompany the local manifestations; and will dismiss them with the simple remark, that we do not usually have much swelling and erythematous flush about the larger joints, such as the hips and shoulders. I must now ask you to mark the statement which I am about to make, as it is of special importance in connection with the topic I shall presently mention. The statement is this: this man has had no pain at any time on the chest,

no præcordial pain at any time during the course of the disease. I will soon speak more particularly of the importance of this statement in the history of his case. This is a disease which in its acute form—for it is presented to us both as an acute and subacute affection—is characterized by a good deal of febrile movement pertaining to the disease itself, and also symptomatic. One of the popular names for this form of fever is "rheumatic fever," and it is not altogether improper, for the fever does not depend upon the local affection entirely, but it is sometimes altogether out of proportion to the local affection. We have, therefore, a fever which is partly essential and partly symptomatic. Last evening this man's pulse had fallen to 72 and the temperature in the axilla was 100¼. This affords a good illustration of the disparity which is sometimes seen between the pulse and temperature, as regards the criteria of a fever. When such a disparity is present, the temperature is entitled to the preference in deciding the question of fever or no fever.

This morning the pulse was 68. It is always to be borne in mind, that, in many diseases, about the time of convalescence, the patients have a pulse which is below the average frequency in the same persons in health. This is the case in typhoid and typhus fever, pneumonia, and some other affections. This morning there is no fever present, the temperature being 98¼.

This man has been taking quinine and nitro-muriatic acid. It might, at first, strike the mind as an incongruity in the treatment of this disease to administer an acid, while the predominant feature of the disease is the presence already of an acid in the system, but really there is no incongruity in it. Over and over again we apply remedies and measures which are directly antagonistical, and each will meet its own indication, and often the only proper method of treating certain cases is to meet the indications.

We come now to speak of one of the important events which is liable to occur in the course of inflammatory rheumatism. This disease in itself, as far as the constitutional difficulty is concerned, is not dangerous to life; but there is a danger in connection with certain incidental events, and those events which are most likely to occur relate to the heart. There is a special liability to an inflammation affecting one or both serous investments of this organ, and these are the untoward events to be looked after in cases of articular rheumatism. The importance of the disease and the permanent welfare relate chiefly to the occurrence of these complications. There are some other complications which are so infrequent that they do not give us much care, and we will pass their consideration. The cardiac affections are the prominent ones. Endocarditis occurs in quite a proportion of cases, but I do not give you the figures, because I think there has been some looseness and error in making up statistics upon this point. The reason for this

I will soon mention. Pericarditis is of much less frequent occurrence than endocarditis, and it may be said further with regard to these complications, that if we have pericarditis we have endocarditis, but the rule does not hold in the opposite direction. Pericarditis involves a certain amount of immediate danger, though a great proportion of cases get well. What we probably have in this case is endocarditis, and first of all we will study the evidence upon which this probability is based. The evidence in this case is not absolute, but it is *probable*. Now you will recollect the fact to which I called your special attention a few moments ago, viz., this patient has not had præcordial pain, or any chest symptoms whatever, during the progress of his case. The diagnosis of endocarditis is therefore based entirely upon physical evidence. This is the reason why endocarditis is a disease which has been discovered within the last half century, and was never before known. It was discovered by physical exploration, and must continue to be recognized by this means, because it occurs without any subjective symptoms. It is associated probably with some increase of the circulation, but as this increase goes more or less with the rheumatism, we cannot draw the inference from this that endocarditis is present. How are we to determine whether a patient has endocarditis or not, who is suffering with articular rheumatism? We are to reach a positive diagnosis in this way: if the patient be under your observation, and you can determine by auscultation that there is no mitral systolic murmur present at the commencement of the attack, and then in the course of the disease a mitral systolic murmur is developed, you know that the patient has endocarditis. It all depends upon the development of this mitral systolic murmur, and the murmur is the hinging point. This patient has a mitral systolic murmur, but the diagnosis is not positive, because the patient had the same murmur when he came into the hospital, and we do not know certainly that the murmur has been developed since the commencement of the disease. It has probably been developed in this patient since the commencement of this attack, for it is the first attack the patient has had of the rheumatism; he has always been well, and as the murmur is one which does not indicate regurgitation, it is altogether probable that in this case it is evidence of endocarditis. I find here that the apex of the heart is beating in the fourth intercostal space, as it not infrequently does when the body is in a recumbent position. By percussion I determine that the heart is not enlarged. This would not be the case if the patient had had mitral disease for any length of time previous to the present attack, for he would have more or less enlargement of the heart.

Within a certain circumscribed space about the apex of the heart, I get a murmur with the first sound of the heart, a mitral systolic murmur, and it is not propagated much beyond this quite limited

area. It is not proper to call this murmur a mitral regurgitant murmur, because there is no evidence of regurgitation.

What do we look for as physical evidence to show that there is regurgitation? The fact that a mitral murmur is present, is not limited to the apex, is tolerably loud, and is propagated to the left, would be evidence that it was one of regurgitation.

I also get a murmur at the base of the heart, but I attach no special importance to this, because we cannot attach much importance to a murmur at the base of the heart in a case of articular rheumatism. It is very frequently present, and is dependent upon the condition of the blood. It is always present in females, or at least I believe I have never seen a case of articular rheumatism in a female where this murmur was not present. It is just here, I apprehend, that great confusion has arisen with regard to statistics in reference to endocarditis, and many cases have been called endocarditis in which the disease did not exist. I would not make my diagnosis relying upon this murmur at the base, unless I had the mitral systolic murmur at the same time.

Endocarditis is a serious complication, because in it the rheumatism has laid the foundation for the subsequent occurrence of valvular lesions.

We have attenuation of the valves, thickening and calcification of the valves and other valvular lesions, all arising from an endocarditis in connection with rheumatism, and we have not much knowledge of endocarditis except in connection with these cases of articular rheumatism. We come now to ask the question, what are the indications in the treatment of acute articular rheumatism? In the first place we would like to cut it completely short if possible, but we cannot do this often, if ever. Next, we would like to abridge its duration, and there is reason to believe that this may be done to a certain extent. The great object, however, is to prevent these cardiac complications, pericarditis and endocarditis, for if a patient passes through this disease and escapes these complications, he is exceedingly fortunate.

Just here, however, a knowledge of the natural history of the disease, based upon the observation of cases which have been permitted to run their course without the influence of therapeutical interference, is of service in making up our estimate of the value of treatment. In the year 1862, I conceived a plan of observing cases of articular rheumatism, without the use of medicine. The reason for so doing was because almost all the cases reported as having been under the influence of any special plan of treatment, such as mercurialization, colchicum, bleeding, blistering, etc., were reported as cured, and hence each plan of treatment was reported as being attended with the greatest success. I therefore reasoned that the probability was, inasmuch as all the different modes of treatment tended to success, that the disease itself tended

towards getting well. I accordingly treated 13 cases in this hospital, and they got no remedy at all, except one which was intended for a moral effect upon the patients, and that, for the sake of giving it a name, was called the placeboic remedy. The only treatment which these patients received, aside from this placeboic remedy, was a little anodyne and local applications to the joints of a palliative character. I resolved to continue the plan of treatment until something occurred to render it improper to continue it longer, and in only one of the 13 cases treated after this method did any complication occur, and that patient had the complication when she came into the hospital. The average duration of the disease in those cases was 26 days, and no important complications took place. I reported these cases in an article entitled "A contribution toward the Natural History of Articular Rheumatism," which was published in the *American Journal of the Medical Sciences*, July, 1863. I hope I shall not be thought egotistical in referring to these observations. They were made in this hospital, and my object in making them was stated to the class then in attendance. So far as I know, a series of similar observations had never before been made. I am led to assert my claim to whatever credit may belong to precedence in this line of investigation, because shortly after my observations a similar plan for the same object was pursued by others. Guy's Hospital Reports, volume for 1865, contains a report of a considerable number of cases treated by Dr. Gull, chiefly with mint water; and another report of additional cases was made in an article by Dr. Gull and Dr. Sutton, contained in the "Transactions of the Royal Medical and Chirurgical Society of London," in 1869. I should not thus expose myself to the charge of egotism in asserting my claim to priority in the study of the natural history of articular rheumatism, had these observers made any reference to my article in the *American Journal of the Medical Sciences*. I feel bound to make this claim, not alone for myself, but for this hospital and for American clinical medicine.

Dr. Fuller, who is the author of the so-called "Alkaline treatment," states that cardiac complications will not arise after the alkalescence of the urine is once established, but I think this author is too ardent in his statements, for I have seen cases in which endocarditis has been developed while the patients were fully under the effect of the alkaline treatment. Statistics, however, show that there is a diminished *liability* to these complications, and therefore we are not warranted in repeating observations without remedies. The method of treatment to be pursued in a case of acute articular rheumatism, is the adoption of what is called the alkaline treatment. The prime object in this treatment is, to produce alkalinity of the urine, regarding that as the criterion that the system is sufficiently affected in as short time as possible, for we cannot tell at what instant the complications may appear.

To accomplish this, the bi-carbonate of soda or potassa may be given in half-drachm or drachm doses every two hours, and by these doses you can render the urine alkaline within twenty-four hours at the farthest, with a good deal of certainty. After the urine has been rendered alkaline, the remedy is to be continued in varying doses sufficient to maintain the urine in an alkaline condition during the continuance of the disease. In this case before us, the disease has continued only ten days, and the patient is apparently convalescent.

Quinia in full doses also forms a good adjuvant in the treatment, as the patient is becoming convalescent. It contributes very much to the welfare of the patient. The joints are to be treated by palliating applications. Frequently you will find that shampooing the joints, be they never so tender, is very beneficial, commencing with gentle frictions, and gradually increasing the force as the patient can bear. Fomentations which contain alkalies and anodynes may be used also as local applications. As a rule, it is one of the great objects of medical treatment to relieve pain, for pain interferes with sleep and wears out the vital forces of the patient. Those patients afflicted with articular rheumatism may have opium sufficient to allay all irritation from pain, and give them quiet and rest. A more minute detail of the pathology of this disease must be considered at another time.

NOTE.—At a subsequent clinical lecture, Dr. Flint presented a case of acute articular rheumatism during the course of which peri-endocarditis (developed when the urine was alkaline), chorea, and right hemiplegia from embolism occurred. Coincident with the occurrence of the hemiplegia, a basic systolic heart-murmur, which had previously existed, disappeared.—*Med. Record.*

Ventilation and Warming.

In a lecture on ventilation, lately delivered before the Franklin Institute, Mr. L. W. Leeds gives the following practical directions concerning provisions for ventilation and warming in the construction of buildings: First, never have long underground fresh-air ducts. Second, never allow a sewer, soil-pipe, foul-air flue, or smoke-flue, to come near the fresh-air supply-flue, for fear of some connection being made between them by carelessness or accident. Third, never heat a building exclusively by currents of warm air. Fourth, always put the heating-flues on the outside walls instead of on the inside walls. Fifth, endeavor strenuously to avoid the fresh-air chamber becoming a common receptacle for all the rubbish of a filthy cellar.

American Medical Association.

[As our Special Correspondent, detailed for the occasion, has failed to report on time for the present No., we borrow *verbatim et literatim*, without endorsement, the report of *The Clinic*.—ED.]

ST. LOUIS, Tuesday, May 6, 1873.

The National American Medical Association assembled this morning at 11 o'clock at Masonic Hall, Corner of Seventh and Market Streets.

The meeting was called to order by the ex-President of the Association, Dr. D. W. Yandell, of Louisville, who introduced Rev. Dr. Nicholls, who opened the session with prayer. Dr. Nicholls concluded with the Lord's prayer.

The chairman then introduced to the convention Dr. John S. Moore, one of the veteran physicians of St. Louis, who had been chosen to deliver the welcoming address.

As usual upon such occasions, the Dr. exploded at once into a grandiloquent burst of oratory. He congratulated his audience, some 300 in number, on the fact that the far-famed "Star of Empire" was just at that moment so far west and so high in the zenith as to be able to shine upon their deliberations. He spoke of the "Father of Waters" which flowed at their feet, of the fertility of the soil of the State of Missouri, of the city of St. Louis as the "Metropolis of the West," [what Western city is not?] containing [everything must be grand in proportion] no less than 450,000 souls. Having wrought up his audience to the proper pitch with these new and interesting facts, in a medical point of view, he exhibited to them that these things were mere trifles when compared with the vast amount of ores which lay imbedded beneath their feet, particularly of lead and iron. "Why, gentlemen," said he, glowing over the thought like a heated furnace, "not a hundred miles below this city, on the Iron Mountain Railroad, we not only have an iron mountain but iron mountains—sufficiently abundant to supply the world with this important metal for thousands of years—mountains made up of iron ore so pure as to be manufactured into horse shoes and horse-shoe nails on the blacksmith's anvil," and then, half-deprecatingly, half-jestingly, "I will not vouch, however, for horse-shoe nails." (Appreciative applause).

In explanation of the fact that St. Louis had no medical edifices or hospitals or museums and such like paraphernalia, to speak of, the speaker hastens to explain that "the people of this city did not come here, particularly, to found and foster scientific and benevolent institutions. What do you suppose, sirs, they came here for? To make money—to worship at the altar of mammon, and not the altar of science. This city, consequently, viewed from a scientific

stand-point, does not compare as favorably as we might desire with some of the other cities of this country. * * * * I am glad, however, gentlemen, to be able to say that it is contemplated soon to construct a general hospital, under the auspices of both the State and the city, which will doubtless be ample for all our wants.

"In conclusion, notwithstanding we cannot point you to magnificent medical edifices, extensive museums, and capacious hospitals, we hope to make amends, in part at least, for all these short-comings, by the cordiality with which we receive you."

The retiring President of the Association then introduced his successor, Dr. Thomas M. Logan, the newly-elected President, who came forward and took his seat.

Dr. J. B. Johnson, Chairman of the Committee of Arrangements, made a few remarks in furtherance of the welcome extended by Dr. Moore. He thought that his predecessor had almost exhausted the subject, but he could not refrain from extending the congratulations of the committee which he represented to the guests of the St. Louis medical fraternity, but wished to add their hearty welcome to the one already extended.

The committee recommend that the general meeting be held each morning in the main hall, from 9 A. M. to 1:30 P. M.

Further, that the committees, known as "sections," meet as follows: Section on Surgery, in main hall, and other sections on the third floor. Section on Materia Medica and Chemistry, in the exposition room. Section on Psychology and Medical Jurisprudence, in the "entered apprentices' room." Sections on the practice of medicine and obstetrics, in the master masons' room. Exposition of drugs, chemicals, instruments, chemical apparatus, and surgical appliances, in the banquet hall.

Dr. Logan now came forward and delivered himself of

The Presidential Address.—Every thoughtful medical man who attended this late meeting of the American Medical Association, must have felt humiliated when he heard the ranting twaddle uttered by the newly installed President, Dr. Thos. M. Logan, of California. This is not the first time that the association and the profession of the country have been chagrined by the wretched spectacle of an incompetent and pretentious ignoramus roaring his senseless but sounding phrases in the ears of the public. It was said by Napoleon on his retreat from Russia, "there is but a step from the sublime to the ridiculous." The American Medical Association, if ever sublime has certainly descended to the ridiculous. This stage appears to have been inaugurated by your very respectable fellow citizen—Dr. George Mendenhall, whose address was considered remarkable, only for its puerilities, and whose quality as presiding officer was fitly characterized by an Eastern Medical Journal, as "palsied inefficiency." Dr. Mendenhall did

not attempt eloquence. He was wisely ambitious to appear in the *role* of the old family horse, who never kicks up in the shafts nor runs away. He has been followed by two eloquent presidents—Drs. Yandell and Logan—race horses, low down in the "forties." These orators burst on the Association, breathing flames and smoke —terms which, we doubt not, will be considered by themselves to appropriately designate their rhetorical pyrotechnics. Space will not admit, nor is life long enough, to review the wonderful performance of Yandell, but our readers are entitled to some specimens from the fast, furious and formidable oration of Logan: Listen O! awe-struck reader of THE CLINIC to this exordium:

"GENTLEMEN: Just two years ago there was witnessed a spectacle well worthy our contemplation! It was full of significance, and stands forth, unparalleled, in the history of our divine art, from its earliest annals down to the present moment.

"Along the Atlantic slope of this vast continent—throughout the length and breadth of the land from Maine to Mexico—were seen, gathering together, one hundred and twenty-one living, aspiring intelligences, moved by one thought, nerved by one impulse, animated by one hope—the good of humanity!

"Abandoning, for the nonce, the peaceful pursuits of their chosen vocation, relinquishing its rewards, and exposing themselves to all the hazards incident upon velocity of locomotion, westward they steered their beneficent course, borne along the iron pathway cleaved across the continent!

"Annulling the opposing conditions of time and space, over three thousand miles they went—'skimming over the valleys, thundering across the rivers, and panting up the sides or piercing through the hearts of the mountains.' Science having made subservient to their bidding those dynamic agencies, more potent than the Genii of Arabian fable, they accomplished in seven days the travel that once consumed more than as many months: and thus they reached the city of the Golden Gate—the Mecca of their pilgrimage."

This tremendous burst of eloquence was roared out to commemorate the fact that one hundred and twenty delegates from the States east of the Rocky mountains attended the meeting of the Association at San Francisco. Further on the great orator characterizes this bit of travel as "a spectacle of moral grandeur never before witnessed in the history of the Association—never in the annals of medicine." The actors in this wonderful performance appear to agree with Dr. Logan in their estimate of its importance, for they have organized themselves into a society under the title of the "Rocky Mountain Society" and have elected Dr. Washington L. Atlee, President. We have not been favored with the "eloquent" address of Dr. Atlee, but we can affirm in advance that it is as tremendous as the flowery, poetical, sentimental, pious, —and we must say, unintelligible—address of Parvin, President of the Medical Journal Association, a society, also, whose existence is a "spectacle of moral grandeur," etc. The American Association, O! unsophisticated reader of THE CLINIC, contains a vast number of eloquent gentlemen; but one President is elected annually; hence the infrequent opportunities for rhetorical display, and hence, also, the organization of the Medical Journal Associa-

tion, of the Rocky Mountain Association, and possibly, other spectacles of moral grandeur. Let them all do their best: we believe that none of them will ever attain to the moral grandeur achieved by the eloquent Logan.

After the exordium above given, Dr. Logan expatiates on the great influence of the Association in the same stately manner, and with great smoke and flame, as follows:

"Nor is the influence yet abated. Like yon mighty river, which sweeps with ever-living, ever-moving waters along the wharves and by the busy marts of this Empire City of the West, carrying rich deposits of fertility and plenty from State to State, in its annual overflowings, to bless the dwellers upon its shores and throughout the vast regions of its lengthened course, so we are here to-day, rejoicing in the strength of our numbers, to scatter far and wide, along the pathway of humanity, the benign influences and free-will offerings of our collective counsel and experience."

He gratifies the assembled medical wisdom by this tribute to the influence of the Association:

"But, gentlemen, if the estimate I have rendered of what our Association have done be at all true—if it has made better physicians of us and raised the dignity of the profession—if it be at all true that the infusion of clear and inductive thinking, and the importation of scientific method and scholastic art, have done so much to advance medicine towards that exalted station among its cognate sciences to which it is so justly entitled—then so much the weighter are our present responsibilities; so much the louder is the call upon us to sustain our lofty character and position, by increasing the expansive circle of our usefulness, and by extending the range of our scientific resources."

Dr. Logan takes issue with Yandell on the matter of medical education, in the same eloquent strain. Yandell had in the previous meeting roared over the "rugged utility" aspect of medical education, and gave the *coup-de-grace* to scholastic attainments. Logan arises to a noble indignation when he reaches this point, and delivers himself in the following tremendous style:

"In vain may cry of 'Reform! reform!' be rung with its many changes round the circle of our schools, from Maine to Louisiana, and be re-echoed from our colleges in California and Oregon, so long as it is proclaimed in the high places of the profession, that the exigencies of the times and the requirements of humanity exact such a constant supply of medical force, as will hardly permit the acquisition of any greater degree of knowledge and attainments than such as will enable the new-fledged graduate to turn them promptly to clinical purposes. With an apparently reckless inconsiderateness of what might entail a waste of professional intellect, that may possibly be equivalent to the daily loss of threescore and ten years of progress, it has been deliberately argued, in the presence of the assembled Association, that profundity of learning is not essential for the discharge of the physician's function, and that practically the more the sphere of his scientific resources is expanded, so much the less ability does he seem to exhibit in the use of therapeutics. Germany has been instanced to substantiate this hypothesis—Germany, where the crowning glory of modern medicine is found, not only in its minute and exact knowledge of general, special and comparative anatomy and physiology—not only in those peculiarities of the therapeutics of to-day, that one of the freshest and most advanced thinkers of the age has termed *Restorative Medicine*, in contradistinction to destructive and

depressing medication—but rather in 'that purer jewel of her crown,' unblemished by the slightest taint of selfishness—*Preventive Medicine;* Germany, where cellular pathology is sweeping into oblivion a long catalogue of torturing and depressing agents, and where an amount of research in the natural history of diseases, while putting to shame our own shortcomings, is urging us, in common with the prosecutors of our science everywhere, to more determined efforts in this respect—there, in that 'vater-land,' its therapeutics have been signalized as 'something hardly better than nihilism,' and the practice of physic not much more than a 'meditation on death.'"

Having vindicated the claims of scientific medicine, Dr. Logan in the same grand style falls upon the subject of a National Sanitary Bureau, which he warmly advocates. He next proposes that the "work for the future" of the Association is to "educate the people." To this end, he suggests that they "throw away all puerile notions about the dignity of our calling, and approach the people through the only channels by which they can be reached—the newspaper and the lecture room."

Dr. Logan concludes his address in the following peroration, which as a final burst of 2:40 eloquence is worthy of being studied:

"But, gentlemen, whatever course you may think proper to pursue, I am sure that your objects will be the advancement of science, the good of humanity, and the honor and glory of our beloved profession, which for a continuous period of more than two thousand years has numbered among its votaries many of the wisest and most beneficent of the long roll of sages and philanthropists. I feel, therefore, that I cannot better conclude than by bidding you, in this connection, hearken to the utterances of Missouri's honored son, *Clarum et venerabile nomen*, pronounced eighteen years ago before this Association, and now echoed back, from his sepulchral couch, in the Capital of France:

"'On the eve of the battle of the Pyramids, Napoleon exclaimed—'Soldiers! from the height of yon monuments forty centuries look down upon you.' Gentlemen, from the heights of past ages countless worthies of our God-like profession point and beckon to a goal more elevated than ever attracted legislators and conquerors, Solons and Cæsars!'"

Is it not plain that there is but a step between the sublime and the ridiculous?

Entertainments.—The local committee reported the following arrangements for the pleasure of visiting members:

This evening there will be a *soiree musicale* at Mercantile Library Hall, commencing at 8 o'clock. A band has been engaged, and arrangements made for refreshments. The wives and daughters of the physicians are expected to be present. To-morrow evening there will be held a *levee* at the residence of Colonel J. L. D. Morrison, corner of Locust street and Leffingwell avenue. On Thursday evening, Dr. J. J. Woodward, U. S. A., of Washington, will, by special request of the Committee of Arrangements, deliver the Toner Lecture at Masonic Hall. The announcement was received with great applause. On Friday afternoon the visitors will view Lafayette Park, Tower Grove, and Shaw's Garden. Carriages to leave the hall at 2 o'clock.

Special Orders.—A letter from Dr. Woodward, U. S. A., on the organization of the medical corps of the army, was made the special order for to-morrow. Dr. Moore, chairman of the Committee on Prize Essays, notified the committee to meet at his office at 3 o'clock to-morrow afternoon. An invitation was received from the St. Louis Mutual Life Insurance Company to visit their magnificent building. Chauncey I. Filley, postmaster of St. Louis, placed an elegant mail box in the hall, and notified members that every facility would be afforded visiting delegates to receive and dispatch their letters without delay. (Applause.)

Meeting of Sections.—In the afternoon the Convention sat by sections, devoted to the consideration of the various branches of medical practice, and proceeded to discussions and reading of essays on topics pertinent to the several departments below named.

Surgery.—The meeting was convened at 3 o'clock. In the absence of the president, Dr. Warren, Dr. Lankford was elected to the chair; Dr. W. F. Peck, of Iowa, acted as secretary.

Dr. Andrews invited the attention of the profession to the use of drainage tubes in cases of pyæmia, in connection with abscesses in the chest.

Dr. Gouley, of New York, complimented the use of Chassignac's drainage tube, preferring it to the pneumatic aspirator.

The subject was further discussed by Dr. Hughes, who referred to a novel method pursued by Dr. Stone, of New Orleans, in treating abscesses in the chest—taking out a piece of rib, and thereby furnishing an opportunity for permanent drainage; and remarks were also made by Dr. Jones, of Chicago.

The subject of consecutive dislocation of the elbow was brought up by Dr. Moore, of New York, and discussed by Dr. Allen, of Louisiana, and Dr. Andrews.

Dr. Gouley, of New York, introduced a new instrument employed in arresting hemorrhage in cases where the peritoneum is divided, in cases of stone in the bladder and stricture of the urethra.

Practice of Medicine and Obstetrics.—The section met at 3 o'clock in the grand masters' room, Dr. O'Donnell, of Baltimore, in the chair, and Dr. W. Clark secretary pro tem.

The subject of treatment of puerperal convulsions was first discussed. Dr. Hasham, of Delaware, advocated the old remedy, the lancet, expressing the opinion that chloral and its substitutes were quite inefficient. Dr. Catlin, of Connecticut, thought the lancet effective in apoplectic cases, but chloral, stramonium, bromide, etc., in anæmic cases. Dr. Helm reported a case where a patient lost 252 ounces of blood, and recovered. Dr. Hasham maintained that convulsions caused the death of the child. Dr. Montgomery, of St. Louis, advocated the lancet in old and apoplectic cases. Dr. Bean, of New York, and Dr. Gaines, of Alabama, participated in the discussion.

Dr. Seguin, of New York, then read an interesting essay on "Education of the Medical Senses," which was referred to the Committee on Publication.

Dr. Smith, of Iowa, made remarks on position in labor, relating a case of lateral oblique corrected by gravity, and was followed by Dr. Maughs, of St. Louis, and one or two others.

Psychology and Medical Jurisprudence.—The hurry connected with arrival, and the more practical interest attaching to the work of other sections, injuriously affected the attendance on this section, and only about a dozen delegates assembled in the entered apprentice room, where the sessions are to be held. No organization was effected, and the meeting adjourned to next day. Several interesting papers on the medico-legal question of insanity and other kindred topics of great public interest are said to be forthcoming.

Materia Medica and Chemistry.—In a room opposite that occupied by the section on obstetrics and practice of medicine, is an interesting exposition of materia medica and the chemicals, apparatus, etc., used in medical practice. The room was only partly filled, but other articles will probably be exhibited in a day or two.

SECOND DAY.

The Convention was called to order this morning at 10 o'clock, Dr. Logan, of California, in the chair.

The Mercantile Library.—Dr. Atkinson, of Philadelphia, Secretary of the Association, read a communication from the secretary of the Mercantile Library, inviting them to visit the Library rooms during their stay in St. Louis. The invitation was accepted.

Nominating Committee.—The President directed that each State select a delegate to represent them on this committee. The Secretary called the roll of the committee so constituted.

Invitation from Detroit.—The Secretary read invitations from the medical societies of Detroit and the State of Michigan, asking the American Medical Convention to select Detroit as its next place for annual meeting. Referred to the Nominating Committee, which retired for deliberation.

Meetings of Sections.—A Special Committee to report a plan for the better arrangement of "sections," through its chairman, Dr. Howard, of Baltimore, made a report, with a view to expedite business.

The committee suggested that all lengthy papers be referred to a sub-committee, to determine as to the advisability of bringing them before the sections. Each section to have a sub-committee for this especial purpose.

Effective action was urged upon the important subject of medical instruction. That all questions of a personal character, complaints and on credentials, be referred to the Committee on Ethics without discussion. That the Committee on Ethics be constituted of not less than nine members, to be selected by the Nominating Committee and to serve for three years. The following arrangement for sections was suggested in place of that now existing:

1. Practical medicine, materia medica and physiology.
2. Obstetrics, and diseases of women and children.
3. Surgery and anatomy.
4. Medical jurisprudence, chemistry and psychology.
5. State medicine and public hygiene.

The Annual Storm Brews.—Dr. Bronson, of Massachusetts, desired that the report of the Special Committee in reference to arrangement of sections be completed. It was incomplete.

Dr. Davis moved that the report be received, and the recommendations accompanying it be adopted, except such as referred to the Code of Ethics.

Dr. Porter rose to a question of privilege. He said the Code of Ethics needed no change; we need improvement. The interruption of time by voluminous reports worked mischief to the organization. Who reads them? I conceive we want improvement in this behalf. We must not make a mountain out of a mole hill. (Gentle stamping upon the floor, which finally culminated in thunders of applause (?), so that the speaker could not proceed.)

The President suggested that the speaker had exhausted the alloted time for discussion.

Dr. Davis, of Chicago, introduced an amendment to the by-laws that a council, consisting of twenty-one members, shall take cognizance and decide all questions of an ethical or judicial character. This committee to be appointed by the Nominating Committee. After prolonged debate this amendment was voted down, when the report of the Special Committee was adopted.

From Dr. Gross, of Pennsylvania, an interesting letter was read. He stated therein his deep regret that he was unable to attend the present meeting of the Association, and trusted that the meeting would be an uncommonly harmonious one, and that no outside or evil influences might be permitted to mar its deliberations. In conclusion, he proposed certain changes in the laws of the Association, so as to make it more of a scientific and less of a declamatory body than it has heretofore been.

The Medical Corps of the Army.—Dr. Woodward, Assistant Surgeon U. S. A., and of the Surgeon General's Department, read a communication to the American Medical Association, signed by a large number of surgeons and assistant surgeons of the U. S. Army,

the argument of which shows that the Medical Staff of the United States Army has not been placed on an equal footing with the other staff corps of the army as regards rank, that they have not had the same consideration shown them in this respect as has been accorded to the navy, and that the record of services of this meritorious body of officers entitles them to the same advantages that have been granted to others.

Dr. Woodward said: Now, Mr. President, I had nothing to do with drawing up this letter, but I indorse it fully, as does also the Surgeon General. It is understood that by the provisions of the Army regulations we of the Army are debarred from making such an appeal, but we can aid the suggestion verbally, by appealing to you, gentlemen of the Association. Any army officer, except a Surgeon, can be retired in old age with a competent pay and the rank of Colonel, while a medical man can only have the rank of Major after twenty years of service, and may ask for a Lieutenant Colonelcy at thirty years. A Lieutenant Colonelcy is all we ask. I was an Assistant Surgeon twelve years ago, and hold the same rank yet. I have filled my contract with the Government, but it has not fully complied with its obligations. We have come up to the Convention for help. Will you help us? (Loud applause.) We only ask what was done for our brethren of the Naval Medical Corps, and nothing more.

Dr. Keller, of Louisville, was in favor of asking the Government for the aid required for the Army doctors.

Dr. Yandell concurred, but there was one word he wanted omitted, and that was the reference to "rebel" prisons. He wanted that to read "Confederate" prisons.

Foreign Representatives.—The Secretary read the following appointments made by the President to represent the American Medical Association to the British Medical Association. Drs. F. G. Smith, C. Wister, J. C. Cohen, of Philadelphia; Dr. E. Warren, of Baltimore; Dr. C. L. Ives, of New Haven; Dr. Edward Montgomery, of St. Louis; and Drs. F. Barker, E. Seguin, and J. C. Hutchison, of New York.

The Secretary stated that commissions for these gentlemen would be made out at once.

Report of Nominating Committee.—Dr. Johnson, of St. Louis, Chairman of the Nominating Committee, made the following partial report:

Your committee suggest the following gentlemen for the various offices named:

President—Dr. J. M. Toner, District of Columbia. First Vice-President—Dr. W. Y. Gadbury, of Mississippi. Second Vice-President, Dr. J. M. Keller, of Kentucky. Third Vice-President—Dr. W. C. Husted, of Missouri. Fourth Vice-President—Dr.

L. D. Warner, of Massachusetts. Treasurer—Dr. Caspar Wistar, of Philadelphia. Librarian—Dr. Wm. Lee. Committee on Libraries—Dr. Johnson Elliott. Secretary—Dr. Theodore A. McGraw. Committee of Arrangements—Dr. Brodie, Chairman; Drs. Jas. A. Brown, Morse Stewart, J. F. Noyes, E. W. Jenks, Henry F. Lyster, D. O. Farrard, Eugene Smith, all of Detroit. Committee on Prize Essays—Drs. J. K. Johnson, A. Sager, H. Hitchcock, of Detroit; E. Andrews, Ill.; E. S. Gaillard, Ky. Committee on Publication—Drs. F. G. Smith, W. B. Atkinson, D. Morrey Chester, of Penn.; Wm. Lee, District of Columbia; Caspar Wistar, Penn.; H. F. Askew, Delaware; Alfred Stille, Penn.

Detroit was named for the next annual meeting of the Association.

The report was adopted.

Report on Medical Education.—Dr. Carson, of Ohio, read a very interesting and important report on medical education. He set forth the general (?) dissatisfaction among the profession on the subject. He defined two classes of influences reacting on medical education—the external and the internal—of all of which it may be said that they are the products of growth under certain definite and adherent impulses, with power of adaptive modification. This Association can exert great influence by increasing its efficiency, as a tribunal before which subjects may be brought for the exercise of that most potent influence, *discussion*, and not for that impotent purpose of expecting to exercise legislative functions towards the teaching bodies.

The report was referred to the Committee on Publication.

Report on Medical Literature.—Dr. Yandell, Jr., of Louisville, read the report on "Medical Literature." The Association at its last annual meeting requested Dr. Flint to prepare the report, but at the latter's request Dr. Yandell assumed the duties.

He referred to the fact that for years the profession in America had depended entirely on the medical literature of England and the European continent. Now the medical journals published in America are ahead of the combined medical publications of England and France. This remarkable growth must be gratifying to the pride of every American physician. Going back only a quarter of a century and our country was nearly destitute of original works on medicine, almost entirely dependent upon European surgeons and physicians for instruction—now we are independent of the world; our own authors can supply all text books required by the medical student and the practitioner, and for clearness and fullness of information on all practical points, they compare most favorably with the best writings of our brethren abroad.

Dr. Yandell then discussed at length the medical journalism of

America. Over forty medical journals are now published in the United States.

The report was referred to the Committee on Publication.

Prize Essays.—The Committee on Prize Essays, of which Dr. John S. Moore, of St. Louis, is chairman, reported that only one such production had been received by the committee, which was not adjudged worthy of any of the prizes offered.

Treasurer's Report.—A report was read from the Treasurer of the Association, setting forth that there was a balance in the Treasury of only $450—owing to the heavy expense attending the publication of the proceedings of the last annual meeting.

The Centennial Celebration.—Dr. Frederick Horner, Jr., U. S. Navy, offered a resolution that the American Medical Association appoint a committee of one member from each of the original thirteen States of the Union, to report to the Centennial Celebration on the medical, surgical and biographical literature of the period of 1776.

As a tribute to Joseph Warren, Benjamin Rush, Arthur Lee, General Hugh Mercer, and other noble and patriotic physicians who aided to secure American Independence, the resolution was adopted.

Medicine and War.—Dr. Peck, of Iowa, introduced the following preamble and resolutions:

In view of the fact that the reports of the Surgeon General of the U. S. Army, as exhibited in volumes one and two of the first part of the Medical and Surgical History of the War of the Rebellion, have received a too limited circulation by reason of an insufficient issue of the same by Congress; therefore,

Resolved, That the President and Secretary of this Association be directed to petition Congress at the next session in behalf of the profession, asking that the addition recently issued be reproduced in sufficient number to permit of general distribution to the members of the profession throughout the country.

Resolved, That the thanks of this Association are due and are hereby tendered Congress for aiding thus far in developing and presenting to the profession the reports of the Surgeon General, as herein specified.

Resolved, That the thanks of this Association are hereby tendered the officers of the United States Army who have by sacrifice and labor been instrumental in placing before the profession the valuable information contained in volumes one and two of the first part of the Medical and Surgical History of the War of the Rebellion.

Carried unanimously.

Reception To-Night.—This evening, at eight o'clock, Col. and Mrs. J. L. D. Morrison will receive the delegates of the American Medical Association at their elegant mansion, corner of Locust street and Leffingwell avenue.

Medical Statistics.—Dr. Toner submitted some valuable statistics concerning medical societies and institutions in the United States.

There are 405 of the former, and 174 medical hospitals, besides 82 public hospitals, treating 144,750 patients annually.

Meeting of the Sections.—The different sections into which the convention is subdivided, to consider separately the different branches of medical science, meet at 3 o'clock, and were all well attended.

Surgery.—The meeting was presided over by Dr. Andrews, of Chicago, Dr. Peck, of Iowa, acting as secretary.

Dr. Lathrop, of Lyons, Iowa, read a paper on the treatment of bunions, referring to new apparatus and improved modes of treatment.

The discussion was confined almost exclusively to this subject, and comprised remarks by Drs. Moore, of Rochester; Brady, of Princeton; Miles, of Indiana; Lucas, of Illinois; Chambers, of Illinois; Bronson, of Massachusetts, and others.

Practice of Medicine and Obstetrics.—The chair was occupied by Dr. O'Donnell, of Baltimore, Dr. E. W. Gray, of Bloomington, Ill., acting as secretary.

In response to the president's call, no papers were presented, and on motion of Dr. Gray a request was made that all papers belonging to the section be placed in the hands of its officers.

Dr. Todd, of Kansas City, addressed the section on the subject of physiological anomalies in the configuration of the bony and soft walls of the pelvis as a cause of retardation in labor.

The points of the paper were reviewed by Dr. Hollister, of Illinois, who also made some remarks on secondary hemorrhage after delivery.

The hour having arrived, Dr. Drisdell, of Philadelphia, read his paper on the microscopical appearance of ovarian tissue, in the course of which he announced the discovery of a new cell which he denominated the ovarian granular cell. The paper was referred to the Committee on Publication.

Dr. Howard presented a memorial paper by an absent member, on medical education, which was referred to a special sub-committee consisting of Drs. Howard, Pallen, and Todd.

General remarks of a practical character were made by Dr. Garric, of New York, and others, continuing until nearly five o'clock.

Psychology and Medical Jurisprudence.—This section met in the session hall of the Convention, Dr. Comegys, of Cincinnati, in the chair; Dr. Hazard, of St. Louis, secretary.

On invitation of the section, Dr. Hughes, of St. Louis, read a paper entitled "Brain Diseased and Mind Deranged," advocating the peculiar physiological views he has set forth in the medical

society. The paper was listened to with close attention, and was apparently received with considerable favor.

Dr. J. B. Hough, Professor of Miami Valley Institute, read an interesting and strongly original essay on "New Methods of Experimentation in the Problem of Spontaneous Generation."

THIRD DAY.

The delegates re-assembled this morning at half-past nine, in the main hall of the Masonic building. The attendance was fully as large as on the preceding day. Dr. Logan in the chair, with Dr. Atkinson as Secretary. Dr. O'Hagan, of North Carolina, and Dr. Paul F. Eve, of Nashville, were added to the committee to visit foreign medical associations. A letter was read from Dr. Eve, regretting his forced absence from the present meeting.

Nomenclature of Diseases.—The chairman of the Committee on Nomenclature of Diseases submitted the following report:

In accordance with the resolutions appended to the minority report of the committee, adopted by the Association at its last meeting, one thousand extra copies of the proposed nomenclature were printed in pamphlet form, and distributed to the profession, and to the various medical journals, both at home and abroad; and such criticisms and suggestions as would represent their opinions as to its merits and fitness were invited from those receiving it. To this invitation not a single response has been made by medical journals, and but from two practitioners, the latter being such additions as in the judgment of these gentlemen would render the work more complete, but which, in the judgment of the majority, describe conditions which none but a specialist could recognize. From this statement of the results of a year's consideration of the proposed nomenclature, the conclusion may be drawn that the profession are satisfied with the work. Your committee are not willing to entertain the only other conclusion, that men of culture and practical men are indifferent upon a subject of such importance; they therefore again present the resolutions appended to the majority report and ask for their adoption:

Resolved, That the report of the Committee on the Nomenclature of Diseases be referred to a special committee of five members, to be appointed by the President, who shall examine it and report upon its final disposition at the present meeting of the Association.

Resolved, That on the favorable report of such committee, it shall be referred back to the Committee on the Nomenclature of Diseases for the preparation of an index to be published with it, in the forthcoming volume of the Transactions.

Dr. Woodward, U. S. A., spoke against the adoption of nomenclature presented by the majority, setting forth the errors and short-comings; and on his recommendation the following resolutions were adopted:

Resolved, That in the opinion of this Association it is inexpedient to adopt the nomenclature and classification presented by the majority of the Committee on Nomenclature at the meeting at Philadelphia

Resolved, That a committee of three be appointed by the President, whose duty it shall be to communicate the foregoing resolution to the proper committee of the Royal College of Physicians of London, and to negotiate for the representation of the American Medical Association in the first decennial revision of their nomenclature.

An International Medical Congress.—On motion of Dr. Toner, of Washington City, the following resolution was adopted:

Resolved, That in the opinion of this Association it would be an excellent opportunity, at the American Centennial in 1876, for an International Medical Congress to consider, and, if practicable, to adopt, a uniform classification and nomenclature of diseases, to be used by the profession throughout the world.

From the Mediterranean.—The President read a letter from Dr. R. R. Stover, at present at Mentone, in the Mediterranean, asking the Association to appoint a committee to compare the American and foreign winter cures. The letter was referred to the Nominating Committee.

The Secretary's Salary.—Dr. Kellar, of Louisville, offered the following resolution:

Resolved, That the sum of $500 be appropriated as an honorarium for the services of the permanent Secretary during the present year, provided such an amount remains in the treasury after paying necessary expenses.

A National Sanitary Bureau.—Dr. Bell, of Brooklyn, New York, offered the following resolutions:

Resolved, That in the judgment of this Association the establishment of a National Sanitary Bureau, with relations to the General Government similar to those of the Bureaus of Agriculture and Education, is highly desirable as a means of promoting sanitary science and the protection of the public health.

Resolved, That this Association request of the U. S. Educational Bureau to so extend the scope of its inquiry as to include vital diseases and mortuary statistics in relation to local, meteorological and geological influences, and to disseminate the information so collected throughout the country.

After considerable debate these resolutions were referred to the Committee on Public Hygiene and State Medicine.

Suggestions on Medical Education.—The hour of eleven having arrived, special business was in order, and the report of Special Committee was called, to present suggestions on the subject of medical education. Dr. Pollock, of Pittsburg, read the following report:

The committee appointed by the President, at the last meeting of the Association, to take into consideration the propriety of adopting the suggestions of the Committee on Medical Education, are fully impressed with the importance of the subject, and acknowledge the value of the suggestions offered. But we believe it wholly impracticable to carry into operation any law which does

not meet the hearty approval of diverse interests connected with the teaching and practice of medicine; and while we have no doubt that this Association has grown to be a power in the profession, felt and recognized by all, yet to make that power effective, its decisions should be calm and deliberate. Therefore your committee, after due deliberation, have concluded to recommend the adoption of the conclusion of the report of the Committee on Medical Education, which is as follows: That a Congress, composed of two members from each State and Territory, and one from each recognized medical college, all to be members of this Association, be appointed (or nominated by the Nominating Committee) at this present session. That said committee, or congress, shall meet three days previous to our next annual meeting, and that said committee, or congress, shall perfect a plan for some uniform system of medical teaching, which, when adopted by the Association, shall be the only recognized method of medical teaching in the United States.

This report was referred to the Committee on Nominations; then, after long debate, brought back and laid on the table.

The U. S. Marine Hospital Service.—The following amendment to the Constitution of the American Medical Association, as to its relations with the U. S. Marine Hospital Service, proposed by Dr. Hartshorne, of Philadelphia, at the last annual session of the Association, was brought up and referred to the next year's meeting. Its purpose is to place the United States Marine Hospital Service in the same relative position in the American Medical Association as the Medical Departments of the United States Army and Navy.

The Meeting at Detroit.—It was resolved that the next annual meeting, to be held at Detroit, commence on the first Tuesday in June, as it will be too cold in that locality to assemble together early in May, as usual.

Alcoholic Stimulants.—Some temperance man from the rural district wanted the Association to emphatically declare against the free use of alcohol in prescriptions, etc. It was stated by the chair that a caution against the too free use of alcohol had been declared last year, and the extra teetotaler, with his motion, was ruled out of order.

Election of Officers.—The following amendment to the Constitution was proposed and laid over, under the rule, for one year:

Resolved, That article 12, of the Constitution, be amended as follows: Strike out the second clause of first paragraph and insert "They shall be nominated by the Judicial Council and shall be elected by vote on a general ticket."

The Committee on Nominations, after a prolonged absence, returned and reported as follows through the chairman, Dr. Johnson, of St. Louis:

Chairmen and Secretaries of Sections for 1874.—1. Practice of Medicine, Materia Medica and Physiology—Dr. N. S. Davis, of Chicago, Chairman; and Dr. Frothingham, of Ann Arbor, Michigan, Secretary.

2. Obstetrics and Diseases of Women and Children—Dr. Theo. Parvin, of Indianapolis, Chairman; and Dr. Montrose A. Pallen, of St. Louis, Secretary.

3. Surgery and Anatomy—Dr. S. D. Gross, of Philadelphia, Chairman; and Dr. Alonzo Garcilon, of Maine, Secretary.

4. Medical Jurisprudence, Chemistry and Psychology—Dr. A. N. Talley, of South Carolina, Chairman; and Dr. E. L. Howard, of Maryland, Secretary.

5. State and Public Hygiene—Dr. A. N. Bell, of Brooklyn, Chairman; and Dr. A. B. Stuart, of Winona, Minnesota, Secretary.

Resolved, That the Secretary of the Association be authorized to fill up all vacancies in the Committee from the States and Territories.

Also, that Dr. A. N. Bell be President, and Dr. A. B. Stuart, as Secretary.

Committee on Necrology.—Chairman, Dr. A. Sager, Ann Arbor, Michigan, and committee to remain as last year, excepting Dr. Alonzo Garcilon, of Maine, in place of Dr. D. McReese, deceased.

Judicial Committee.—Three years—Drs. Brodie, Mich.; N. S. Davis, Ill.; E. L. Howard, Md.; Wm. O'Baldwin, Ala.; Dean, N. Y.; J. P. Logan, Ga.

Two years—Drs. L. S. Joynes, Va.; R. N. Todd, Ind.; Askew, Del.; J. E. Morgan, D. C.; Daniel Lillie, N. J.; S. N. Benham, Pa.; Dunlap, Conn.

One year—Drs. Bartlett, Wis.; Powell, Ill.; Gale, Ky.; Moses, Mo.; Hughs, Iowa; Bemnis, La.; Cheever, Mass.

Special Committee.—Dr. H. R. Storer, Boston, Mass., Chairman of committee to report on American as compared with foreign winter cures.

The report was adopted by the Association *in toto.*

(It was my intention, Mr. Editor, to have kept up a running commentary all the way through, especially upon the section work, but I soon found that it would encroach too much on your space. I may say only in conclusion that the Association fulfilled the expectations of every one; that is, no one expected it would do anything, and it did just simply—nothing. And thus endeth the 24th session of the great American Mudfog Association for the Advancement of Everything and the Accomplishment of Nothing.)

JOHN SMITH, M.D.

—*The Clinic.*

Editors' Book Table.

[NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & CO., whose catalogue of Medical Books will be sent to any address upon request.]

BOOKS RECEIVED.

Hand Book for the Physiological Laboratory. By E. KLEIN, M.D., Assist. Prof. in the Pathological Laboratory of the Brown Institution, London—formerly Privat-docent in Histology in the University of Vienna; J. BURDON-SANDERSON, M.D., F.R.S., Prof. of Practical Physiology in University College, London; MICHAEL FOSTER, M.A., M.D., F.R.S., Fellow of and Prælector of Physiology in Trinity College, Cambridge; and T. LANDER BRUNTON, M.D., D.Sc., Lecturer on Materia Medica in the Medical College of St. Bartholomew's Hospital, London. Edited by J. BURDON-SANDERSON. In Two Vols. With 133 Plates, containing 353 Illustrations. Vol. I, Text; Vol. II, Plates. Philadelphia: Lindsay & Blakiston. 1873. 8vo. Text (and Index) 585 pages.

This is a most superb work, and fills a hiatus which every physiological student has lamented. Under its guidance all the more important experiments whereby the great science of physiology has been advanced, and rational therapeutics suggested, may be verified, and skill in manipulation and method gained for the initiation of new and, perchance, bolder inquiries. For, doubt it who may, the sure basis of medicine, as either science or art, is only to be found in the minute and exact experimentation which modern physiology demands, supplemented by the wider, more comprehensive, more dazzling and striking generalizations of modern meteorology and its kindred sciences.

A Hand Book of Medical Electricity. By HERBERT TIBBITS, M.D., L.R.C.P., London, Medical Superintendent of the National Hospital for the Paralyzed and Epileptic; Medical Officer for Electrical Treatment to the Hospital for Sick Children, Great Ormond St. With Sixty-four Illustrations. Philadelphia: Lindsay & Blakiston. 1873. 8vo. Cloth. Pp. 164.

The four chapters of this concise and useful manual discuss respectively: medical electricity and electro-medical instruments;

the application of electricity; electricity as an aid to diagnosis; and electro-therapeutics.

Mechanism of the Ossicles of the Ear and Membrana Tympani. By H. HELMHOLTZ, M.D., Professor of Physiology in the University of Berlin, Prussia. Translated from the German, with the author's permission, by ALBERT H. BUCK and NORMAND SMITH, of New York; with Twelve Illustrations. New York: William Wood & Co., 27 Great Jones Street. 1873. Thin 8vo. Cloth. Pp. 69.

Probably the most complete and thorough exposition of the subject extant. The mathematical relations are developed with extreme care and accuracy, with an abstruseness, indeed, exceedingly perplexing to the ordinary scholar, nevertheless the work in great part is readily comprehensible and instructive.

A Treatise on the Principles and Practice of Medicine; Designed for the Use of Practitioners and Students of Medicine. By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine and Clinical Medicine, in the Bellevue Hospital Medical College. Fourth Edition, carefully Revised. Philadelphia: Henry C. Lea. 1873. 8vo. Pp. 1070.

It is unnecessary, of course, to either introduce or eulogize this now standard treatise. All the colleges recommend it as a text book, and there are few libraries in which one of its editions is not to be found. It has accomplished a great work, if in nothing else, in causing the abandonment of the hypermedication that most of its predecessors encouraged and advised. Briefly, it is replete with conservative medicine.

The present edition has been thoroughly revised so as to bring it up to the author's present level of experience and reading. His own clinical studies, and the latest contributions to medical literature, both in this country and in Europe, have received careful attention, so that some portions have been entirely rewritten and about seventy pages of new matter have been added. The additions, as might have been expected, are especially to the section devoted to diseases of the nervous system.

PAMPHLETS, ETC.

The Obstetrical Journal of Great Britain and Ireland, Including Midwifery and the Diseases of Women and Children. Edited by JAMES H. AVELING, M.D., Physician in the Chelsea Hospital for Women, and ALFRED WILTSHIRE, M.D., Ass't Physician Accoucheur to St. Mary's Hospital; to which is added an American Supplement. Edited by WILLIAM F. JENKS, M.D., Obstetric Physician to the Philadelphia Dispensary. To appear in Monthly Numbers, of about Eighty octavo pages each, very handsomely printed, price $5 per annum, in advance. Single Numbers, 50 cents each.

The first (April) number of this new journal has reached our table, and seems to fully merit the patronage asked for it. Among the contributors we recognize a large number of names of world-wide reputation. The American Supplement is to be separately paged for convenience of reference. Address Henry C. Lea, Philadelphia.

Ophthalmic and Aural Surgery Reports. By JULIAN J. CHISHOLM, M.D., etc., etc. Baltimore, Md.

Quarterly Summary of the Transactions of the College of Physicians of Philadelphia, from Feb. 7, 1872, to Oct. 16, 1872, inclusive.

On Ovariotomy. By J. MARION SIMMS, M.D., one of the Surgeons of the New York State Woman's Hospital, etc. Pp. 85.

The feature of this monograph is, we may say, developed in these sentences:

"The time will assuredly arrive when peritonitis, so called, will not kill, because we will learn that the effusions in the peritoneal may be as safely evacuated as those of the pleural cavity; that the danger will consist, not in opening the peritoneal cavity, but in keeping it closed with its retained fluids to poison the blood and take the life of the poor sufferer. The time will also come, when gunshot and other wounds of the abdomen, and perforations of the intestine, will be treated by opening the peritoneal cavity, and washing out or draining off the septic fluids that would otherwise poison the blood; for death in all these cases is produced by the same causes and in precisely the same way, and they will require the same plan of treatment."

All of which we steadfastly believe.—The author will accept our thanks for this valuable and interesting pamphlet.

The Function of the Eustachian Tube in its Relation to the Renewal and Density of the Air in the Tympanic Cavity, and to the Concavity of the Membrana Tympani. By THOS. F. RUMBOLD, M.D., St. Louis. Pp. 40.

Meteorology and its Professors. A review by the Editor of the Canada Med. and Surg. Journal, Counter Statement, etc., etc. By THOS. D. KING, Montreal. 1873. Pp. 26.

Transactions of the Medical Society of the State of California, during the years 1871–72. Sacramento. 1872. Pp. 228.

Editorial.

"De Profundis Clamavi"—"Out of the Sewers."

For several months past, popular patience, well nigh exhausted by the inefficiency and negligence of the Board of Health, has been gradually but certainly giving place to popular indignation, which, with the advance of the season, and consequent increased risk to public health, has been more and more decided in its demands for the abolition of this muncipal monstrosity, this sanitary abortion, miscalled a Board of Health. Stimulated by the lash of public opinion, the Board has at last essayed to do something—what? Honest sanitary work? No! Something to protect public health? No! Only to make a "report," to find an excuse for its own imbecility in the alleged inefficiency of another branch of the muncipal government. This is simply contemptible.

When the Board stands arraigned before the tribunal of public opinion for willful negligence, for which its only alternative plea is gross ignorance, it evades the issue altogether, and attempts to assign as the efficient cause of the great mortality of the city, insufficient sewerage.

And gravely attempts to demonstrate by figures that the man who has 14.50 feet of sewerage is safe, in comparison with him who has only 9.99 feet of this sanitary panacea. Upon such a theory as this, what a perfect temple of hygeia was the "Old Armory," where the proportion of sewer, *per capita*, was unlimited.

However, to give the devil his due, "the report" does not attribute the high rate of mortality *solely* to lack of sewerage, but assigns a portion of it to the "rain-fall." This is lucky for the Board of Public Works, and places a portion, at least, of the responsibility upon shoulders somewhat better able to bear it.

It would seem, then, from this "report," that the result of the operations of this Board of Health since 1867, carried on at an expense of half a million dollars more or less to the city, has been the discovery, that the cause of the great mortality of Chicago is insufficient drainage and too much rain. The JOURNAL moves that the "report" be accepted; that the Board of Public Works be requested to construct for each inhabitant his due proportion of 14.50 feet, or whatever it may be, of sewer; that the clergy be requested to pray for dry weather; and, above all things, that this Board of Health be discharged from further consideration of the subject. W. H.

To Correspondents.

Some of our correspondents may miss replies, for the somewhat personal reason that a sneak thief invading our sanctum, took off with him not only a portion of our wearing apparel, memorandum book, etc., but also a goodly packet of letters, some unanswered. Replies forwarded on notice.

Homœopathy in the Michigan University.

The Regents decree that hereafter all diplomas shall be signed only by the President and Secretary of the University. An adroit dodge.